IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

AMO DEVELOPMENT, LLC, AMO MANUFACTURING USA, LLC and AMO SALES AND SERVICE, INC., Plaintiffs, v. ALCON LENSX, INC., ALCON VISION, LLC, ALCON LABORATORIES, INC. and ALCON RESEARCH, LLC, Defendants.	)	C.A. No. _____ **DEMAND FOR JURY TRIAL**

COMPLAINT

Plaintiffs AMO Development, LLC, AMO Manufacturing USA, LLC, and AMO Sales and Service, Inc. (collectively, "J&J Surgical Vision") are part of Johnson & Johnson Vision, which represents the products and services of Johnson & Johnson Surgical Vision, Inc. and its affiliates. Johnson & Johnson Vision is part of Johnson & Johnson Medical Devices Companies of the Johnson & Johnson Family of Companies. J&J Surgical Vision, for its Complaint against Defendants Alcon LenSx, Inc., Alcon Vision, LLC, Alcon Laboratories, Inc., and Alcon Research, LLC (collectively, "Alcon"), allege as follows:

NATURE OF THE ACTION

1. This is a civil action for infringement of U.S. Patent No. 8,394,084 ("the '084 patent"), U.S. Patent No. 8,403,921 ("the '921 patent"), U.S. Patent No. 8,425,497 ("the '497 patent"), U.S. Patent No. 8,500,724 ("the '724 patent"), U.S. Patent No. 8,709,001 ("the '001 patent"), U.S. Patent No. 9,095,415 ("the '415 patent"), U.S. Patent No. 9,101,448 ("the '448 patent"), U.S. Patent No. 9,107,732 ("the '732 patent"), U.S. Patent No. 9,125,725 ("the '725

patent"), U.S. Patent No. 9,474,648 ("the '648 patent"), U.S. Patent No. 9,693,903 ("the '903 patent"), and U.S. Patent No. 9,693,904 ("the '904 patent") (collectively, the "Asserted Patents"), based on Alcon's manufacture, use, offer to sell, sale, and import/export of the LenSx® Laser System ("LenSx").

PARTIES

2. Plaintiff AMO Development, LLC ("AMO Development") is a Delaware company with a principal place of business at 1700 East St. Andrew Place, Santa Ana, California. AMO Development is an indirect subsidiary of Johnson & Johnson Surgical Vision, Inc.

3. Plaintiff AMO Manufacturing USA, LLC ("AMO Manufacturing") is a Delaware company with a principal place of business at 510 Cottonwood Drive, Milpitas, California. AMO Manufacturing is an indirect subsidiary of Johnson & Johnson Surgical Vision, Inc.

4. Plaintiff AMO Sales and Service, Inc. ("AMO Sales and Service") is a Delaware corporation with a principal place of business at 1700 East St. Andrew Place, Santa Ana, California. AMO Sales and Service is an indirect subsidiary of Johnson & Johnson Surgical Vision, Inc.

5. Upon information and belief, Defendant Alcon LenSx, Inc. ("Alcon LenSx") is a Delaware corporation with a principal place of business at 6201 South Freeway, Fort Worth, Texas.

6. Upon information and belief, Defendant Alcon Vision, LLC ("Alcon Vision") is a Delaware company with a principal place of business at 6201 South Freeway, Fort Worth, Texas.

7. Upon information and belief, Defendant Alcon Laboratories, Inc. ("Alcon Laboratories") is a Delaware corporation with a principal place of business at 6201 South Freeway, Fort Worth, Texas.

8. Upon information and belief, Defendant Alcon Research, LLC ("Alcon Research") is a Delaware company with a principal place of business at 6201 South Freeway, Fort Worth, Texas.

JURISDICTION AND VENUE

9. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

10. The Court has personal jurisdiction over Alcon LenSx because it is a Delaware corporation and, upon information and belief, has regularly and systematically transacted business in Delaware and has committed acts of patent infringement in Delaware.

11. The Court has personal jurisdiction over Alcon Vision because it is a Delaware company and, upon information and belief, has regularly and systematically transacted business in Delaware and has committed acts of patent infringement in Delaware.

12. The Court has personal jurisdiction over Alcon Laboratories because it is a Delaware corporation and, upon information and belief, has regularly and systematically transacted business in Delaware and has committed acts of patent infringement in Delaware.

13. The Court has personal jurisdiction over Alcon Research because it is a Delaware company and, upon information and belief, has regularly and systematically transacted business in Delaware, and has committed acts of patent infringement in Delaware.

14. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1400(b).

BACKGROUND

The Asserted Patents

15. The ’084 patent is entitled “Apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and was duly and legally issued on March 12, 2013. A true and correct copy of the ’084 patent is attached hereto as Exhibit A.

16. The ’921 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and issued on March 26, 2013. A copy of the ’921 patent is attached hereto as Exhibit B.

17. The ’497 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and issued on April 23, 2013. A copy of the ’497 patent is attached hereto as Exhibit C.

18. The ’724 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and issued on August 6, 2013. A copy of the ’724 patent is attached hereto as Exhibit D.

19. The ’001 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and issued on April 29, 2014. A copy of the ’001 patent is attached hereto as Exhibit E.

20. The ’415 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and issued on August 4, 2015. A copy of the ’415 patent is attached hereto as Exhibit F.

21. The ’448 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and issued on August 11, 2015. A copy of the ’448 patent is attached hereto as Exhibit G.

22. The ’732 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and issued on August 18, 2015. A copy of the ’732 patent is attached hereto as Exhibit H.

23. The ’725 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and issued on September 8, 2015. A copy of the ’725 patent is attached hereto as Exhibit I.

24. The ’648 patent is entitled “Apparatus for patterned plasma-mediated laser ophthalmic surgery,” and issued on October 25, 2016. A copy of the ’648 patent is attached hereto as Exhibit J.

25. The ’903 patent is entitled “Apparatus for patterned plasma-mediated laser ophthalmic surgery,” and issued on July 4, 2017. A copy of the ’903 patent is attached hereto as Exhibit K.

26. The ’904 patent is entitled “Apparatus for patterned plasma-mediated laser ophthalmic surgery,” and issued on July 4, 2017. A copy of the ’904 patent is attached hereto as Exhibit L.

27. AMO Development is the owner by assignment of each of the Asserted Patents.

28. AMO Manufacturing holds the exclusive license to manufacture products under the Asserted Patents, including the right to enforce the Asserted Patents jointly with AMO Development.

29. AMO Sales and Service holds the exclusive license to offer to sell and sell products under the Asserted Patents, including the right to enforce the Asserted Patents jointly with AMO Development.

Cataract Surgery

30. Cataracts result from clouding of the crystalline lens of the eye. Left untreated, they can impair vision and ultimately result in blindness.

31. To restore vision in cataract patients, the diseased lens can be removed and replaced by an artificial intraocular lens. Cataract surgery is one of the most common surgical procedures in the United States.

32. Manual cataract surgery involves several challenging steps that require great expertise by the surgeon. To access the diseased lens, the surgeon must perform a capsulorhexis, in which a portion of the anterior capsule surrounding the lens is removed. Manual capsulorhexis involves freehand pulling and tearing of capsular tissue and presents the risk of unwanted tears in the capsule, which can increase surgical time and lead to poor clinical outcomes. Phacoemulsification is then used to break up the diseased lens into smaller pieces, typically using an ultrasonic probe, so that it can be removed. Extended use of the ultrasonic probe can cause excess cumulative dissipated energy in the eye and endothelial cell loss.

The Patented Inventions

33. The Asserted Patents disclose and claim novel inventions that address the most important and difficult steps of cataract surgery, resulting in improved patient care and superior clinical outcomes.

34. The inventors of the Asserted Patents developed apparatus and methods for laser cataract surgery that enable the often difficult steps of cataract surgery to be performed precisely,

consistently, and safely. One key insight was to incorporate an advanced imaging technology known as optical coherence tomography ("OCT") to identify structures in the anterior segment of the eye and to use the image data to control the laser to safely perform laser cataract surgery on the anterior capsule and crystalline lens of the eye.

35. J&J Surgical Vision's patented technology revolutionized cataract surgery by allowing ophthalmologists to perform laser surgery on the anterior capsule and crystalline lens with greater precision, safety, and ease than is possible in manual cataract surgery. The laser can perform an anterior capsulotomy with greater circularity, and with decreased likelihood of nicks and tears, which allows for improved positioning and centration of the intraocular lens. This dramatic advance is described in a November 2010 cover article published by the inventors in *Science Translational Medicine*, entitled "Femtosecond Laser-Assisted Cataract Surgery with Integrated Optical Coherence Tomography." As shown, OCT-guided laser cataract surgery (**B**) provided for the extraction of capsular tissue with far greater precision and reproducibility compared to manual cataract surgery (**A**):

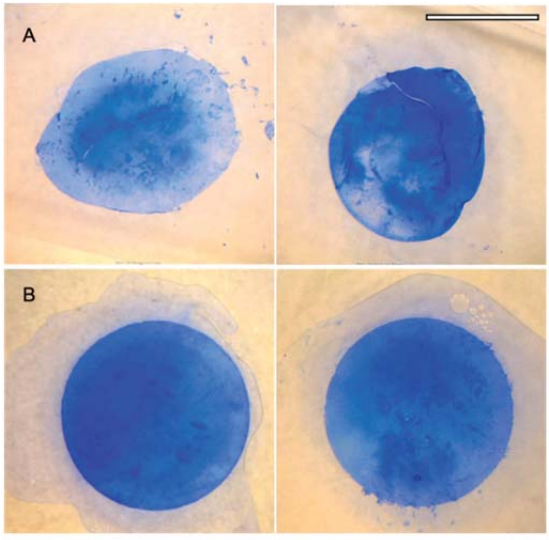
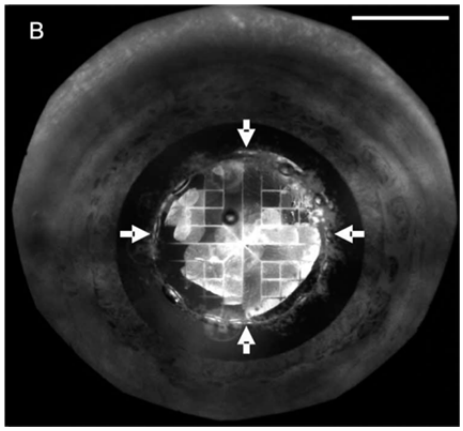


Fig. 7. Precision and reproducibility of lens capsule extraction. (**A** and **B**) Representative examples of the human lens capsule extracted after (A) manual capsulorhexis and (B) laser capsulotomy. Scale bar, 3 mm.

36. The OCT-guided laser also can make cuts in the diseased lens in a technique known as lens fragmentation, which reduces the amount of potentially damaging ultrasonic energy needed for phacoemulsification. As shown by the inventors in their *Science Translational Medicine* article, OCT-guided laser cataract surgery can be used to segment the lens tissue, which allows the surgeon to remove the diseased lens faster and with less ultrasonic energy:



Segmentation of the diseased lens in this manner minimizes potential endothelial injury and results in faster visual recovery.

37. The inventors' work ultimately led to the Catalys® Precision Laser System, which was cleared by the FDA for commercial sale in 2011. This system employs the patented technology described and claimed in the Asserted Patents. The Catalys® Precision Laser System is marked with the Asserted Patents in accordance with 35 U.S.C. § 287(a).

Alcon's Infringement of J&J Surgical Vision's Patents

38. Alcon manufactures and markets the LenSx in the United States. The LenSx is an OCT-guided laser system designed and intended to perform anterior capsulotomy and lens fragmentation.

39. Upon information and belief, Alcon's customers in the United States and within this judicial district have used and continue to use the LenSx in accordance with instructions provided by Alcon.

40. The LenSx directly competes against J&J Surgical Vision's Catalys® Precision Laser System.

41. Upon information and belief, Alcon LenSx makes, uses, offers to sell, and/or sells the LenSx and consumables in the United States, and supplies or causes to be supplied the LenSx and consumables from the United States for use abroad. Upon information and belief, the LenSx is manufactured at facilities operated by Alcon LenSx in the United States, and is distributed both domestically and internationally. Upon information and belief, Alcon LenSx and its employees authored at least portions of the Operator's Manual for the LenSx, which instructs customers how to perform anterior capsulotomy and lens fragmentation with the LenSx.

42. Upon information and belief, Alcon Vision makes, uses, offers to sell, and/or sells the LenSx and consumables in the United States, and supplies or causes to be supplied the LenSx and consumables from the United States for use abroad. Upon information and belief, Alcon Vision acts as a distributor for the LenSx both domestically and internationally. Upon information and belief, Alcon Vision is responsible for repair and maintenance of LenSx systems used by its customers.

43. Upon information and belief, Alcon Laboratories makes, uses, offers to sell, and/or sells the LenSx and consumables in the United States, and supplies or causes to be supplied the LenSx and consumables from the United States for use abroad. Upon information and belief, Alcon Laboratories is involved in the manufacture, distribution, and export of the LenSx. Upon information and belief, Alcon Laboratories sells consumables for the LenSx,

including but not limited to the LenSx SoftFit Patient Interface, and charges customers for using the LenSx on a per-procedure basis.

44. Upon information and belief, Alcon Research makes, uses, offers to sell, and/or sells the LenSx and consumables in the United States, and supplies or causes to be supplied the LenSx and consumables from the United States for use abroad. Upon information and belief, Alcon Research is involved in the manufacture, distribution, and export of the LenSx.

45. Upon information and belief, Alcon LenSx, Alcon Vision, Alcon Laboratories, and Alcon Research act as agents of each other and/or operate in concert as integrated parts of the same business group with respect to the LenSx.

Alcon's Knowledge and Willful Infringement

46. LenSx Lasers, Inc. (which is now part of Alcon) was founded in 2008, more than three years after OptiMedica filed its original provisional patent application that resulted in the Asserted Patents. Its founders and other early employees, including key personnel who designed the hardware and software incorporated into the LenSx, were previously affiliated with J&J Surgical Vision.

47. Alcon acquired LenSx Lasers, Inc. in July 2010 and commercially launched the LenSx in the United States in 2011. At the time, there was a small number of competitors seeking to commercialize laser cataract surgery systems, including Alcon and J&J Surgical Vision. Upon information and belief, at that time, Alcon (including its predecessors) was a sophisticated company that closely tracked the activities and patent filings of its competitors. Upon information and belief, Alcon has continued to track the activities and patent filings of its competitors.

48. WO 2006/074469, the international patent application that resulted in the Asserted Patents, published on July 13, 2006. Alcon was aware of that application no later than September 10, 2009, and Alcon's knowledge is confirmed by its citation to WO 2006/074469 in connection with its own patent applications. Upon information and belief, Alcon (including its predecessors) was aware of this patent application and its applicability to the LenSx when it commercially launched the LenSx in the United States. Upon information and belief, given the relationship of this application to the Asserted Patents, Alcon's knowledge of WO 2006/074469 also resulted in knowledge of the Asserted Patents at or about the time that they issued.

49. US 2006/0195076, the United States patent application that resulted in the Asserted Patents, published on August 31, 2006. Alcon was aware of that application no later than April 6, 2010, and Alcon's knowledge is confirmed by its citation to US 2006/0195076 in connection with its own patent applications. Upon information and belief, Alcon (including its predecessors) was aware of this patent application and its applicability to the LenSx when it commercially launched the LenSx in the United States. Upon information and belief, given the relationship of this application to the Asserted Patents, Alcon's knowledge of US 2006/0195076 also resulted in knowledge of the Asserted Patents at or about the time that they issued.

50. Upon information and belief, Alcon acquired LenSx Lasers, Inc. in July 2010. Upon information and belief, the acquisition agreement included an Escrow Balance that was intended to cover any one-time payment or future royalty payments arising from claims of patent infringement. Upon information and belief, the acquisition agreement also contemplated that the Alcon and the prior owners of LenSx Lasers, Inc. would equally share liability for payments arising from patent infringement up to $400 million. Upon information and belief, these

provisions of the acquisition agreement were included to address the risk of liability arising from the then-pending patent applications that resulted in the Asserted Patents.

51. J&J Surgical Vision's patent rights were well-known within the industry. For example, the inventors described their patented technology in a November 2010 cover article for *Science Translational Medicine*, entitled "Femtosecond Laser-Assisted Cataract Surgery with Integrated Optical Coherence Tomography." Upon information and belief, Alcon was familiar with and had reviewed that article prior to the commercial launch of the LenSx. The article provided notice that J&J Surgical Vision's predecessor "OptiMedica has filed patents on the technology described in the paper," specifically identifying patent applications that resulted in the Asserted Patents.

52. J&J Surgical Vision's patent rights were also described in a March 2011 article published in *Cataract & Refractive Surgery Today*, entitled "The Origins of Laser Cataract Surgery." Upon information and belief, Alcon authorized William J. Link, the former Chairman of LenSx Lasers, Inc., be interviewed for that article on its behalf. Upon information and belief, Alcon was familiar with and had reviewed that article prior to the commercial launch of the LenSx. The article described J&J Surgical Vision's pending patent applications that led to the Asserted Patents. A representative of J&J Surgical Vision's predecessor was quoted as saying, "There's a lot of intellectual property that we filed early that was very forward-thinking, and it was all about image-guidance of femtosecond laser for cataract, capsulotomy, fragmentation, softening, corneal incisions, astigmatic correction, and so those things we've been thinking about since day 1."

53. U.S. Patent No. 8,394,084, one of the Asserted Patents, issued on March 12, 2013. Alcon was aware of that patent, and upon information and belief its applicability to the LenSx,

no later than no later than April 5, 2013. Alcon's knowledge is confirmed by its citation to U.S. Patent No. 8,394,084 in connection with its own patent applications. Alcon's identification of that patent very shortly after its issuance indicates that Alcon was tracking the application that resulted in U.S. Patent No. 8,394,084 even before the patent issued. Upon information and belief, given the relationship of this patent to the other Asserted Patents, Alcon's knowledge of U.S. Patent No. 8,394,084 also resulted in knowledge of the other Asserted Patents at or about the time that they issued.

54. On March 24, 2020, J&J Surgical Vision identified each of the Asserted Patents to Alcon and explained that the manufacture, use, offer to sell, and/or sale of the LenSx infringes the Asserted Patents. On April 14, 2020, J&J Surgical Vision provided exemplary claim charts that showed how claims of the Asserted Patents read on the LenSx. J&J Surgical Vision also requested Alcon identify any limitations of the patent claims that it contends are not met by the LenSx. Alcon failed to identify any missing limitation of the patent claims in response to that correspondence.

55. Alcon also had knowledge of the Asserted Patents because the Catalys® Precision Laser System is marked with the Asserted Patents pursuant to 35 U.S.C. § 287(a).

56. Upon information and belief, at the time it learned of the Asserted Patents, Alcon knew that the patented technology was fundamental to the operation and success of the LenSx. For example, Alcon stated: "the LenSx® laser uses a range of highly advanced technologies – including integrated optical coherence tomography (OCT) – to capture incredibly precise, high-resolution images of your eyes. These images – and the measurements and data they provide – are then used to plan and perform a surgery to exacting specifications not attainable with traditional surgery."

57. Given the similarity of the Asserted Patents to the technology incorporated in the LenSx and touted in Alcon's product literature, Alcon's knowledge of the Asserted Patents would immediately give it knowledge that the LenSx and its use infringe the Asserted Patents.

58. Despite its knowledge of the Asserted Patents, Alcon continues to knowingly and willfully infringe the patents by making, using, offering to sell, and/or selling the LenSx, and instructing its customers to use the LenSx. Upon information and belief, after learning of the Asserted Patents, Alcon has not made any changes to the LenSx in order to avoid infringement. Alcon's knowing infringement of the Asserted Patents is thus egregious, willful, and in bad faith.

COUNT I
Infringement of the '084 Patent

59. J&J Surgical Vision incorporates by reference the allegations set forth in paragraphs 1 through 58 as though fully set forth herein.

60. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '084 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

61. For example, the LenSx meets each limitation of claim 1 of the '084 patent, which recites:

> A system for cataract surgery on an eye, comprising:
>
> a. a pulsed laser configured to produce a treatment beam which creates dielectric breakdown in a focal zone of the treatment beam within one or more tissue structures of a cataractous crystalline lens;
>
> b. a three-dimensional, optical coherence tomography imaging assembly capable of creating a continuous depth profile of the anterior portion of the cataractous crystalline lens, the profile comprising information regarding the location of a capsule of the cataractous crystalline lens and structures within the crystalline

lens, by detecting remitted illumination light from locations distributed throughout a volume of the cataractous crystalline lens, and generating signals based upon the remitted light;

c. an optical scanning system configured to position a focal zone of the treatment beam to a targeted location in three dimensions in the crystalline lens; and

d. one or more controllers operatively coupled to the laser, optical system, and imaging assembly, and programmed to automatically:

i. scan tissues of the patient's eye with the imaging assembly so as to generate image data signals to create a continuous depth profile of at least the anterior portion of the lens;

ii. identify one or more boundaries of the one or more tissue structures of the cataractous crystalline lens based at least in part on the image data;

iii. identify one or more treatment regions based upon the boundaries; and

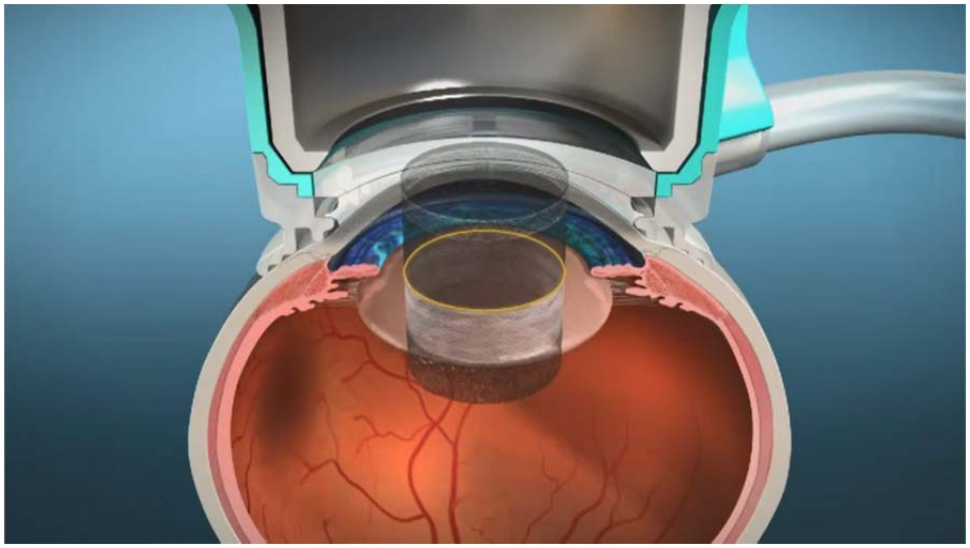
iv. operate the optical scanning system with the pulsed laser to produce a treatment beam directed in a pattern based on the one or more treatment regions so as to create a capsulotomy in the anterior portion of the lens, the treatment beam having a pulse repetition rate between about 1 kHz and about 1,000 kHz, and a pulse energy between about 1 microjoule and about 30 microjoules.

62. The LenSx is a system for cataract surgery on an eye. For example, Alcon has stated that the LenSx is "indicated for use in patients undergoing cataract surgery." Upon information and belief, the LenSx is indicated for use in the creation anterior capsulotomy and laser phacofragmentation during cataract surgery.

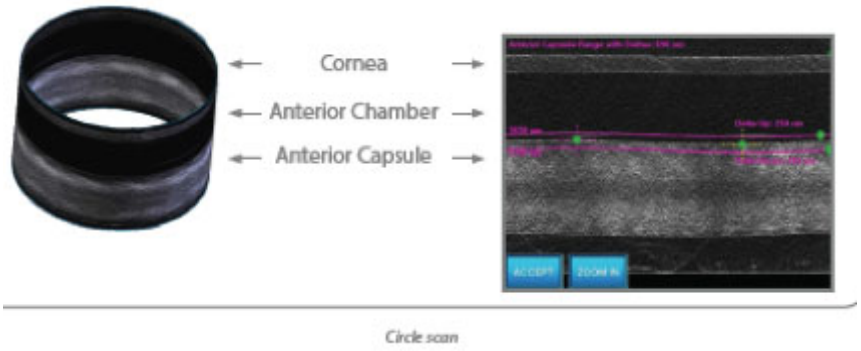
63. The LenSx is a pulsed laser configured to produce a treatment beam which creates dielectric breakdown in a focal zone of the treatment beam within one or more tissue structures of a cataractous crystalline lens. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at

the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision." Upon information and belief, the photodisruption is achieved through dielectric breakdown within the tissue structures.

64. The LenSx includes a three-dimensional, optical coherence tomography imaging assembly capable of creating a continuous depth profile of the anterior portion of the cataractous crystalline lens, the profile comprising information regarding the location of a capsule of the cataractous crystalline lens and structures within the crystalline lens, by detecting remitted illumination light from locations distributed throughout a volume of the cataractous crystalline lens, and generating signals based upon the remitted light. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly. For example, Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye." Upon information and belief, the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



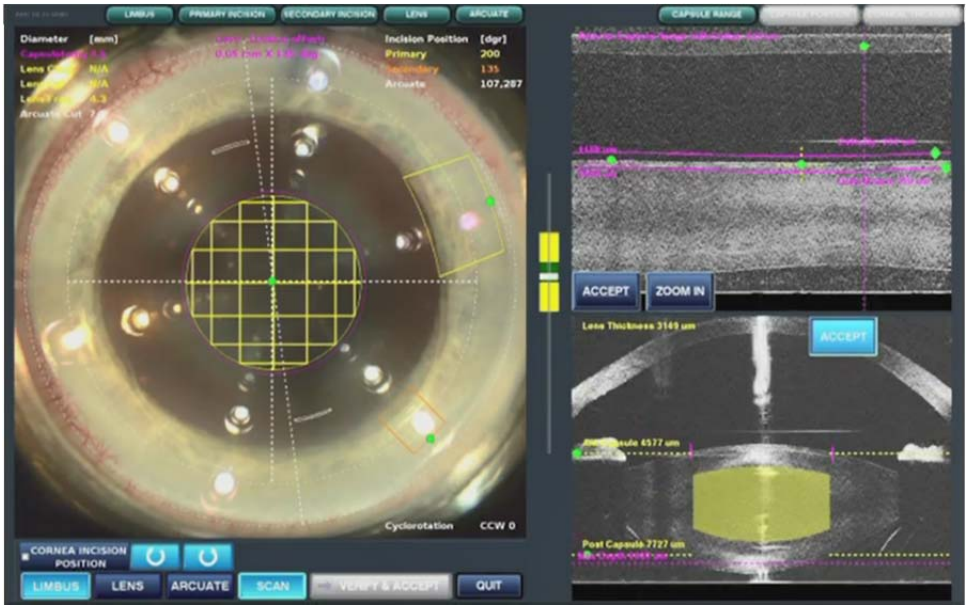
The circle scan provides a continuous depth profile of the anterior portion of the cataractous crystalline lens. For example, the depth profile is shown in the following diagram that Alcon uses to describe the circle scan:



65. The LenSx includes an optical scanning system configured to position a focal zone of the treatment beam to a targeted location in three dimensions in the crystalline lens. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

66. The LenSx includes one or more controllers operatively coupled to the laser, optical system, and imaging assembly, and programmed to automatically scan tissues of the patient's eye with the imaging assembly so as to generate image data signals to create a continuous depth profile of at least the anterior portion of the lens. For example, Alcon has stated that in the LenSx, "a computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the

scanning objective lens." For example, Alcon has shown the resulting image of a continuous depth profile as follows:



67. The LenSx includes one or more controllers operatively coupled to the laser, optical system, and imaging assembly, and programmed to automatically identify one or more boundaries of the one or more tissue structures of the cataractous crystalline lens based at least in part on the image data. For example, Alcon has stated that in the LenSx, "a computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the computer auto-finds the anterior and posterior surfaces of the lens capsule. Upon information and belief, the computer generates two horizontal lines on the OCT image and indicates the depth of the anterior capsule based at least in part on the image data, as shown in the image above.

68. The LenSx includes one or more controllers operatively coupled to the laser, optical system, and imaging assembly, and programmed to automatically identify one or more treatment regions based upon the boundaries. For example, Alcon has stated that the LenSx

"includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations."

69. The LenSx includes one or more controllers operatively coupled to the laser, optical system, and imaging assembly, and programmed to automatically operate the optical scanning system with the pulsed laser to produce a treatment beam directed in a pattern based on the one or more treatment regions so as to create a capsulotomy in the anterior portion of the lens, the treatment beam having a pulse repetition rate between about 1 kHz and about 1,000 kHz, and a pulse energy between about 1 microjoule and about 30 microjoules. For example, Alcon has stated that in the LenSx, "a computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Upon information and belief, the LenSx is indicated for use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery. Upon information and belief, the LenSx has a 50 kHz repetition rate for cataract surgery. Upon information and belief, the LenSx has a maximum pulse energy of 15 microjoules for cataract surgery.

70. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States infringes the '084 patent under 35 U.S.C. § 271(a).

71. Alcon's customers in the United States directly infringe the '084 patent by using the LenSx.

72. Alcon actively induces infringement of the '084 patent by encouraging its customers to use the LenSx, with knowledge that the induced acts constitute patent infringement and/or with willful blindness to infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the

ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Additionally, upon information and belief, Alcon publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

73. Alcon has known of the '084 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '084 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '084 patent claims plainly reads upon the LenSx.

74. Alcon contributes to infringement of the '084 patent by offering to sell and selling the LenSx and consumables for use with the LenSx, including but not limited to the LenSx SoftFit Patient Interface, that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are designed and configured so that the customer will use the system to perform anterior capsulotomy and lens fragmentation in a manner that infringes the patent. The customer necessarily infringes the patent when it uses the LenSx and consumables for the indicated use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or

use the LenSx or consumables for the indicated uses in a way to avoid infringement of the '084 patent.

75. Alcon infringes the '084 patent by supplying or causing to be supplied in or from the United States components of the invention that are especially made or especially adapted for use in the invention, and which would infringe the patent when combined, including but not limited to the LenSx and consumables such as the LenSx SoftFit Patient Interface, in violation of 35 U.S.C. § 271(f). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use.

76. Alcon is not licensed under the '084 patent.

77. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Surgical Vision's marking of the Catalys® Precision Laser System.

78. J&J Surgical Vision has been damaged and will continue to be damaged by Alcon's infringement of the '084 patent.

79. J&J Surgical Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Surgical Vision does not have an adequate remedy at law.

80. Despite Alcon's knowledge of the '084 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '084 patent has been willful, making this an exceptional case and entitling J&J Surgical Vision to an award of increased damages and attorneys' fees.

COUNT II
Infringement of the '921 Patent

81. J&J Surgical Vision incorporates by reference the allegations set forth in paragraphs 1 through 80 as though fully set forth herein.

82. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '921 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

83. For example, the LenSx meets each limitation of claim 1 of the '921 patent, which claims:

> A system for cataract surgery on an eye of a patient, comprising:
>
> a laser assembly for generating a pulsed laser treatment beam that creates dielectric breakdown in a focal zone of the treatment beam within tissues of the patient's eye so as to effect a cataract surgery procedure;
>
> an optical coherence tomography (OCT) 3-Dimensional imaging system configured for imaging tissue of a cataractous crystalline lens of the patient;
>
> an optical scanning system configured for positioning the focal zone of the treatment beam to targeted locations of the crystalline lens; and
>
> a computer control system operatively coupled to the laser assembly, the imaging system, and the optical scanning system, and programmed to automatically:
>
> a. acquire image data from locations distributed throughout a volume of the cataractous crystalline lens using the imaging system;
>
> b. construct one or more images of the patient's eye tissues from the image data, comprising an image of at least a portion of the crystalline lens;
>
> c. construct an anterior capsulotomy cutting region based on the image data, the capsulotomy cutting region comprising an anterior cutting boundary axially spaced from a posterior cutting boundary so as to

define an axially-elongated cutting zone transecting the anterior capsule; and

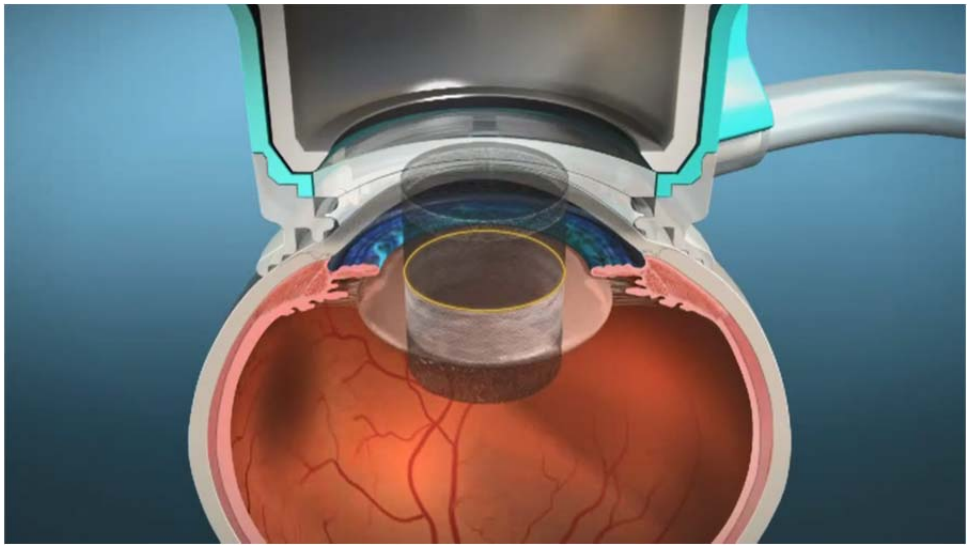
d. operate the optical scanning system and laser assembly to direct a treatment beam in a pattern based on the anterior capsulotomy cutting region so as to create an anterior capsulotomy in the crystalline lens.

84. The LenSx is a system for cataract surgery on an eye of a patient. For example, Alcon has stated that the LenSx is "indicated for use in patients undergoing cataract surgery." Upon information and belief, the LenSx is indicated for use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery.

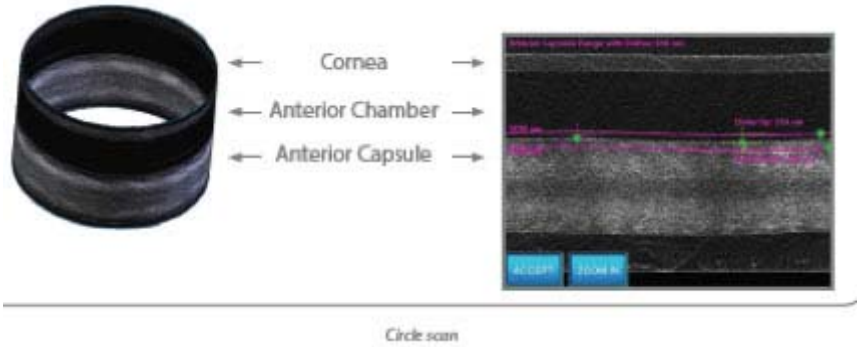
85. The LenSx includes a laser assembly for generating a pulsed laser treatment beam that creates dielectric breakdown in a focal zone of the treatment beam within tissues of the patient's eye so as to effect a cataract surgery procedure. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision." Upon information and belief, the photodisruption is achieved through dielectric breakdown within the tissue structures. Upon information and belief, the LenSx is indicated for use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery.

86. The LenSx includes an optical coherence tomography (OCT) 3-Dimensional imaging system configured for imaging tissue of a cataractous crystalline lens of the patient. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly.

Upon information and belief, the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a circle scan. Alcon has illustrated a circle scan as follows:



The circle scan provides an image of the cataractous crystalline lens. For example, the depth profile is shown in the following diagram that Alcon uses to describe the circle scan:

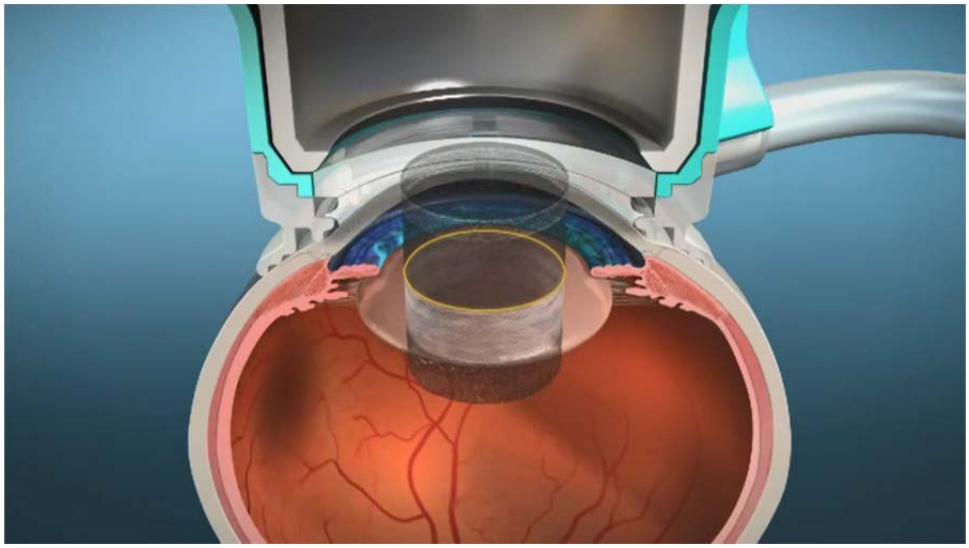


87. The LenSx includes an optical scanning system configured for positioning the focal zone of the treatment beam to targeted locations of the crystalline lens. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in

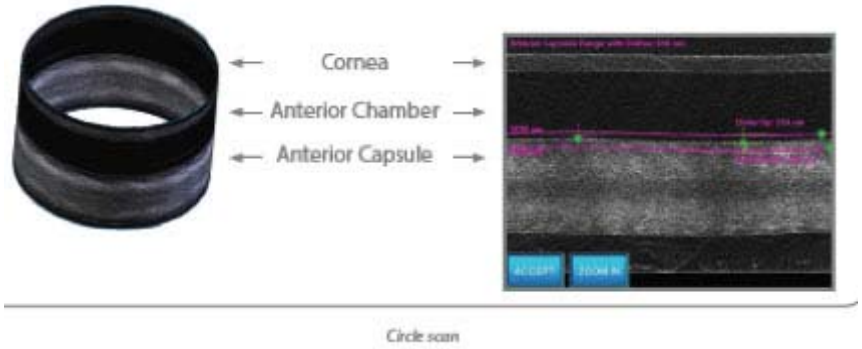
diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

88. The LenSx includes a computer control system operatively coupled to the laser assembly, the imaging system, and the optical scanning system, and programmed to automatically acquire image data from locations distributed throughout a volume of the cataractous crystalline lens using the imaging system. For example, Alcon has stated that in the LenSx, "a computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly. Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye."

89. The LenSx includes a computer control system operatively coupled to the laser assembly, the imaging system, and the optical scanning system, and programmed to automatically construct one or more images of the patient's eye tissues from the image data, comprising an image of at least a portion of the crystalline lens. For example, Alcon has stated that in the LenSx, "a computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



The circle scan provides an image of at least a portion of the cataractous crystalline lens. For example, Alcon uses the following diagram to describe the circle scan:



90. The LenSx includes a computer control system operatively coupled to the laser assembly, the imaging system, and the optical scanning system, and programmed to automatically construct an anterior capsulotomy cutting region based on the image data, the capsulotomy cutting region comprising an anterior cutting boundary axially spaced from a posterior cutting boundary so as to define an axially-elongated cutting zone transecting the anterior capsule. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that "[a]nterior capsulotomy patterns are programmed to cut from at least

100 microns below to 100 microns above the anterior capsule." Alcon has described the anterior capsulotomy pattern as a "treatment pattern" that "begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached." Upon information and belief, a completed anterior capsulotomy transects the anterior capsule.

91. The LenSx includes a computer control system operatively coupled to the laser assembly, the imaging system, and the optical scanning system, and programmed to automatically operate the optical scanning system and laser assembly to direct a treatment beam in a pattern based on the anterior capsulotomy cutting region so as to create an anterior capsulotomy in the crystalline lens. For example, Alcon has stated that in the LenSx, "a computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Upon information and belief, the LenSx is indicated for use in the creation of an anterior capsulotomy. Alcon has stated that "[a]nterior capsulotomy patterns are programmed to cut from at least 100 microns below to 100 microns above the anterior capsule." Alcon has described the anterior capsulotomy pattern as a "treatment pattern" that "begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached."

92. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States infringes the '921 patent under 35 U.S.C. § 271(a).

93. Alcon's customers in the United States directly infringe the '921 patent by using the LenSx.

94. Alcon actively induces infringement of the '921 patent by encouraging its customers to use the LenSx, with knowledge that the induced acts constitute patent infringement and/or with willful blindness to infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

95. Alcon has known of the '921 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '921 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '921 patent claims plainly reads upon the LenSx.

96. Alcon contributes to infringement of the '921 patent by offering to sell and selling the LenSx and consumables for use with the LenSx, including but not limited to the LenSx SoftFit Patient Interface, that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are designed and configured so that the customer will use the system to perform anterior capsulotomy and lens

fragmentation in a manner that infringes the patent. The customer necessarily infringes the patent when it uses the LenSx and consumables for the indicated use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or consumables for the indicated uses in a way to avoid infringement of the '921 patent.

97. Alcon infringes the '921 patent by supplying or causing to be supplied in or from the United States components of the invention that are especially made or especially adapted for use in the invention, and which would infringe the patent when combined, including but not limited to the LenSx and consumables such as the LenSx SoftFit Patient Interface, in violation of 35 U.S.C. § 271(f). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use.

98. Alcon is not licensed under the '921 patent.

99. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Surgical Vision's marking of the Catalys® Precision Laser System.

100. J&J Surgical Vision has been damaged and will continue to be damaged by Alcon's infringement of the '921 patent.

101. J&J Surgical Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Surgical Vision does not have an adequate remedy at law.

102. Despite Alcon's knowledge of the '921 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '921 patent has been willful, making this an exceptional case and entitling J&J Surgical Vision to an award of increased damages and attorneys' fees.

COUNT III
Infringement of the '497 Patent

103. J&J Surgical Vision incorporates by reference the allegations set forth in paragraphs 1 through 102 as though fully set forth herein.

104. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '497 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, without authority or license, in violation of 35 U.S.C. § 271.

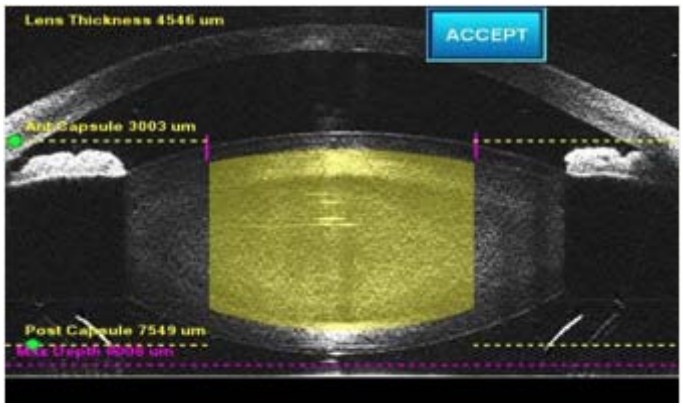
105. For example, the LenSx meets each limitation of at least claim 1 of the '497 patent, which claims:

> A method of making an incision in eye tissue during a cataract surgical procedure, the method comprising:
>
> > operating an imaging system, coupled to an electronics control system comprising a computer, so as to acquire image data from locations distributed throughout a volume of a crystalline lens of a patient and construct one or more images of the patient's eye tissues from the image data, wherein one or more images include an image of at least a portion of the crystalline lens;
> >
> > identifying, using the control system, a cutting region based on the image data, the cutting region being at least partially defined by an anterior cutting boundary and a posterior cutting boundary and including a portion of the crystalline lens;
> >
> > generating a beam of light using a pulsed laser system guided by the control system so as to scan the beam in a pattern within the cutting region and segment the crystalline lens into a plurality of pieces for subsequent removal, the segmentation of the crystalline lens including:

> focusing the beam at a first focal point located at a first depth in the eye tissue;
>
> scanning the beam on the eye while focused at the first depth so as to create an incision pattern within the cutting region at the first depth;
>
> focusing the beam at a second focal point located at a second depth in the eye tissue different than the first depth; and
>
> scanning the beam on the eye while focused at the second depth so as to create an incision pattern within the cutting region at the second depth.

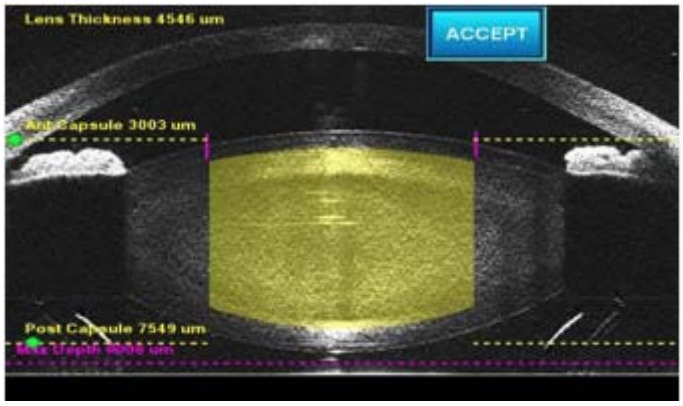
106. The LenSx practices a method of making an incision in eye tissue during a cataract surgical procedure. Upon information and belief, the LenSx is indicated for use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery.

107. The LenSx operates an imaging system, coupled to an electronics control system comprising a computer, so as to acquire image data from locations distributed throughout a volume of a crystalline lens of a patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images include an image of at least a portion of the crystalline lens. For example, Alcon has stated that in the LenSx, "a computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly. Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye." For example, upon information and belief the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a line scan. For example, Alcon has shown an image of a line scan as follows:



The line scan provides an image of at least a portion of the crystalline lens.

108. The LenSx identifies, using the control system, a cutting region based on the image data, the cutting region being at least partially defined by an anterior cutting boundary and a posterior cutting boundary and including a portion of the crystalline lens. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." For example, Alcon has shown an image of the target locations as follows:



Alcon has stated that "[t]he Lens treatment volume is represented by a yellow semi-transparent solid. The upper arc of the solid matches the programmed Anterior Lens Curvature and the lower arc corresponds to the programmed Posterior Lens Curvature." Upon information and belief the treatment volume includes at least a portion of the crystalline lens.

109. The LenSx generates a beam of light using a pulsed laser system guided by the control system so as to scan the beam in a pattern within the cutting region and segment the crystalline lens into a plurality of pieces for subsequent removal, the segmentation of the crystalline lens including focusing the beam at a first focal point located at a first depth in the eye tissue. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea." Alcon has also stated that in the LenSx, "a computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Alcon has stated that the resulting "Lens Pattern is used to perform phacofragmentation of the crystalline lens. Lens Patterns may be specified as Chop, Cylinder or combined Chop and Cylinder patterns." Alcon has also stated that these "[l]ens phacofragmentation patterns are programmed to cut from at least 500 microns above the posterior capsule to at least 500 microns below the anterior capsule." Upon information and belief, phacofragmentation segments the lens into a plurality of pieces for subsequent removal. Alcon has stated that the phacofragmentation "treatment pattern begins at the programmed posterior depth."

110. The LenSx generates a beam of light using a pulsed laser system guided by the control system so as to scan the beam in a pattern within the cutting region and segment the crystalline lens into a plurality of pieces for subsequent removal, the segmentation of the crystalline lens including scanning the beam on the eye while focused at the first depth so as to create an incision pattern within the cutting region at the first depth. For example, Alcon has stated that the phacofragmentation "treatment pattern begins at the programmed posterior depth as an initial x-shaped scan is complete."

111. The LenSx generates a beam of light using a pulsed laser system guided by the control system so as to scan the beam in a pattern within the cutting region and segment the crystalline lens into a plurality of pieces for subsequent removal, the segmentation of the crystalline lens including focusing the beam at the second focal point located at a second depth in the eye tissue different than the first depth. For example, Alcon has stated that the incision of the treatment pattern at the programmed posterior depth is "followed by successive x-shaped scans created a few microns apart." Alcon has also stated that these "cuts proceed from the deepest point and move anteriorly, ending below the anterior capsule."

112. The LenSx generates a beam of light using a pulsed laser system guided by the control system so as to scan the beam in a pattern within the cutting region and segment the crystalline lens into a plurality of pieces for subsequent removal, the segmentation of the crystalline lens including scanning the beam on the eye while focused at the second depth so as to create an incision pattern within the cutting region at the second depth. For example, Alcon has stated that the incision of the treatment pattern at the programmed posterior depth is "followed by successive x-shaped scans created a few microns apart." Alcon has also stated that these "cuts proceed from the deepest point and move anteriorly, ending below the anterior capsule."

113. Alcon's use of the LenSx in the United States infringes the '497 patent under 35 U.S.C. § 271(a).

114. Alcon's customers in the United States directly infringe the '497 patent by using the LenSx.

115. Alcon actively induces infringement of the '497 patent by encouraging its customers to use the LenSx, with knowledge that the induced acts constitute patent infringement

and/or with willful blindness to infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

116. Alcon has known of the '497 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '497 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '497 patent claims plainly reads upon the LenSx.

117. Alcon contributes to infringement of the '497 patent by offering to sell and selling the LenSx and consumables for use with the LenSx, including but not limited to the LenSx SoftFit Patient Interface, that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are designed and configured so that the customer will use the system to perform anterior capsulotomy and lens fragmentation in a manner that infringes the patent. The customer necessarily infringes the patent when it uses the LenSx and consumables for the indicated use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial

noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or consumables for the indicated uses in a way to avoid infringement of the '497 patent.

118. Alcon is not licensed under the '497 patent.

119. J&J Surgical Vision has been damaged and will continue to be damaged by Alcon's infringement of the '497 patent.

120. J&J Surgical Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Surgical Vision does not have an adequate remedy at law.

121. Despite Alcon's knowledge of the '497 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '497 patent has been willful, making this an exceptional case and entitling J&J Surgical Vision to an award of increased damages and attorneys' fees.

COUNT IV
Infringement of the '724 Patent

122. J&J Surgical Vision incorporates by reference the allegations set forth in paragraphs 1 through 121 as though fully set forth herein.

123. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '724 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, without authority or license, in violation of 35 U.S.C. § 271.

124. For example, the LenSx meets each limitation of at least Claim 1 of the '724 patent, which claims:

> A method for laser cataract surgery that protects the retina of the eye from laser exposure, comprising:

a. generating, using a computer, an image of at least a portion of a crystalline lens of the eye based on detecting remitted light from locations distributed throughout a volume of the crystalline lens;

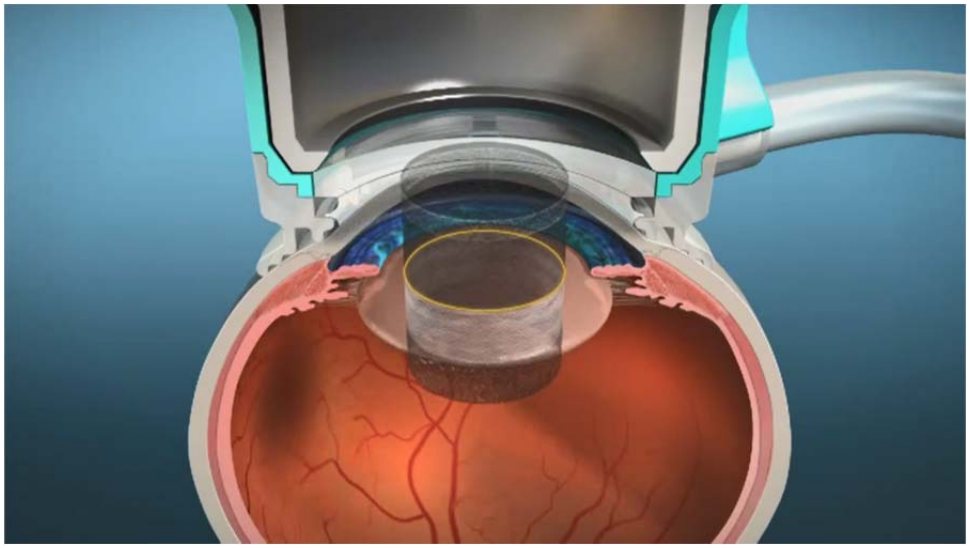
b. processing data including the image data so as to determine a targeted treatment region in the lens of the eye, wherein the targeted treatment region comprises an axially-elongated cutting zone transecting the anterior capsule and does not transect the posterior capsule of the lens;

c. directing a laser beam, under computer guided control, in a first pattern to photodisrupt at least a portion of the lens tissue of the eye to create a light scattering region; and

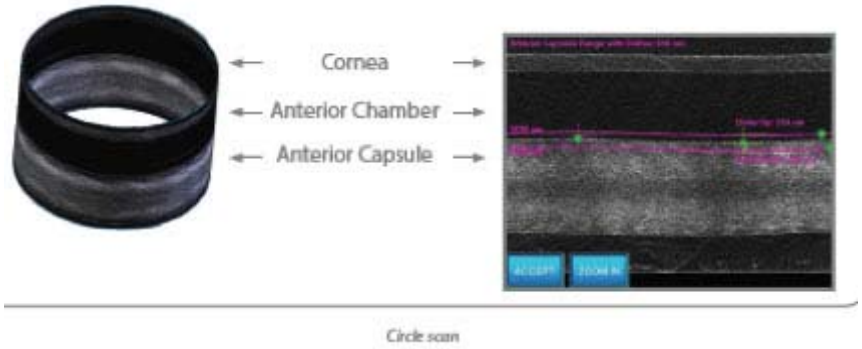
d. subsequently directing the laser beam, under computer guided control, in a second pattern in lens tissue anterior to the light scattering region so as to photodisrupt at least a portion of the targeted region, thereby effecting patterned laser cutting of lens tissue for subsequent removal of pieces or segments of lens tissue.

125. The LenSx practices a method for laser cataract surgery that protects the retina of the eye from laser exposure. For example, Alcon has stated that the LenSx is "indicated for use in patients undergoing cataract surgery … the LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision." Upon information and belief, these laser pulses are directed in a manner to avoid damage to the retina of the eye.

126. The LenSx generates using a computer, an image of at least a portion of a crystalline lens of the eye based on detecting remitted light from locations distributed throughout a volume of the crystalline lens. Upon information and belief, the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



The circle scan provides an image at least a portion of the crystalline lens. For example, Alcon has shown an image of a circle scan as follows:



Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly to generate the circle scan. For example, Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye."

127. The LenSx processes data including the image data so as to determine a targeted treatment region in the lens of the eye, wherein the targeted treatment region comprises an axially-elongated cutting zone transecting the anterior capsule and does not transect the posterior capsule of the lens. For example, Alcon has stated that the LenSx "includes an optical coherence

tomography (OCT) based imaging device that assists in localizing specific target locations." Additionally, "[t]he treatment pattern begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created." Upon information and belief, the targeted treatment region comprises an axially-elongated cutting zone transecting the anterior capsule and does not transect the posterior capsule of the lens.

128. The LenSx directs a laser beam, under computer guided control, in a first pattern to photodisrupt at least a portion of the lens tissue of the eye to create a light scattering region. For example, Alcon has stated that "[t]he LenSx® Laser System uses focused femtosecond laser pulses … and separates tissue in the … crystalline lens…. Individual photodisruption locations are controlled by repeatedly repositioning the laser focus. The light pulse is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is photodisrupted at the laser focus…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

129. The LenSx subsequently directs the laser beam, under computer guided control, in a second pattern in lens tissue anterior to the light scattering region so as to photodisrupt at least a portion of the targeted region, thereby effecting patterned laser cutting of lens tissue for subsequent removal of pieces or segments of lens tissue. For example, Alcon has stated that the phacofragmentation "treatment pattern beings at the programmed posterior depth as an initial x-shaped scan is complete, followed by successive x-shaped scans created a few microns apart. As each scan is completed, the lateral extent of the scans is adjusted to fill-in the elliptically shaped

volume. The result is two or more vertically oriented, elliptically shaped planes that intersect at the lens center. As an alternative, a number of cylindrical shells may be generated in lieu of the planes or in combination with the planes. The pattern is automatically completed when the programmed anterior depth is reached." Upon information and belief, phacofragmentation segments the lens into a plurality of pieces for subsequent removal.

130. Alcon's use of the LenSx in the United States infringes the '724 patent under 35 U.S.C. § 271(a).

131. Alcon's customers in the United States directly infringe the '724 patent by using the LenSx.

132. Alcon actively induces infringement of the '724 patent by encouraging its customers to use the LenSx, with knowledge that the induced acts constitute patent infringement and/or with willful blindness to infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

133. Alcon has known of the '724 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '724 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its

customers' use of the LenSx constitutes patent infringement, because the language of the '724 patent claims plainly reads upon the LenSx.

134. Alcon contributes to infringement of the '724 patent by offering to sell and selling the LenSx and consumables for use with the LenSx, including but not limited to the LenSx SoftFit Patient Interface, that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are designed and configured so that the customer will use the system to perform anterior capsulotomy and lens fragmentation in a manner that infringes the patent. The customer necessarily infringes the patent when it uses the LenSx and consumables for the indicated use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or consumables for the indicated uses in a way to avoid infringement of the '724 patent.

135. Alcon is not licensed under the '724 patent.

136. J&J Surgical Vision has been damaged and will continue to be damaged by Alcon's infringement of the '724 patent.

137. J&J Surgical Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Surgical Vision does not have an adequate remedy at law.

138. Despite Alcon's knowledge of the '724 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's

infringement of the ’724 patent has been willful, making this an exceptional case and entitling J&J Surgical Vision to an award of increased damages and attorneys’ fees.

COUNT V
Infringement of the ’001 Patent

139. J&J Surgical Vision incorporates by reference the allegations set forth in paragraphs 1 through 138 as though fully set forth herein.

140. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the ’001 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, without authority or license, in violation of 35 U.S.C. § 271.

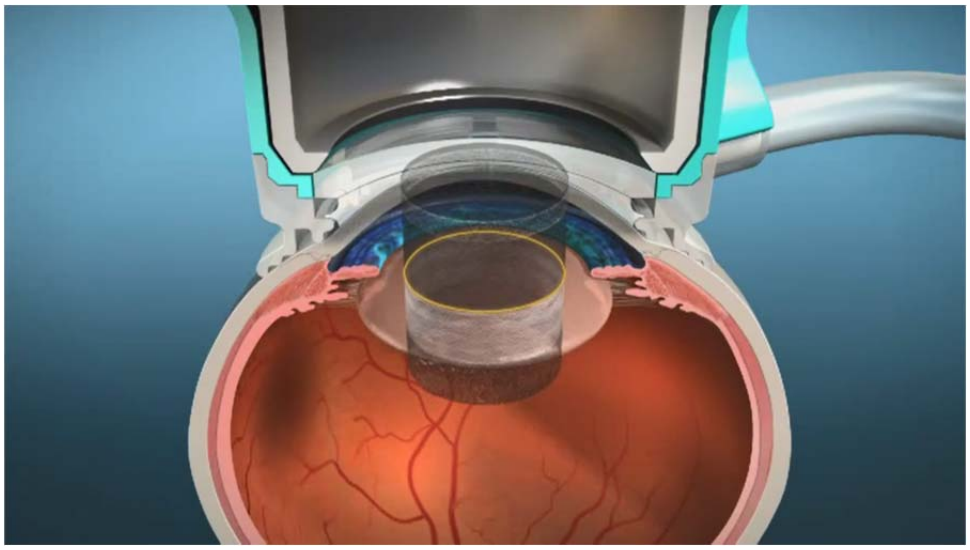
141. For example, the LenSx meets each limitation of at least claim 1 of the ’001 patent, which claims:

> A method for cataract surgery on an eye of a patient using a pulsed laser surgical system, comprising:
>
> > operating an imaging system so as to acquire image data from locations distributed throughout a volume of a cataractous crystalline lens of the patient and construct one or more images of the patient’s eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens;
> >
> > constructing, using a computer system, an anterior capsulotomy cutting region based on the image data, the capsulotomy cutting region comprising an anterior cutting boundary axially spaced form a posterior cutting boundary so as to define an axially-elongated cutting zone transecting the anterior capsule; and
> >
> > operating the surgical system to direct a pulsed laser treatment beam in a pattern based on the anterior capsulotomy cutting region so as to create an anterior capsulotomy in the crystalline lens.

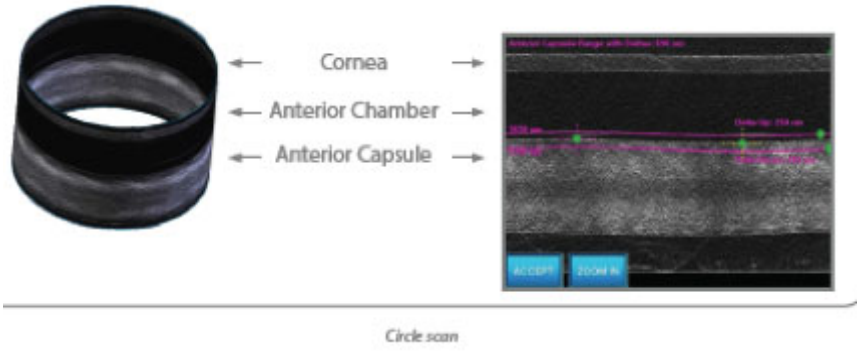
142. The LenSx practices a method for cataract surgery on an eye of a patient using a pulsed laser surgical system. For example, Alcon has stated that “[t]he LenSx® Laser is

indicated for use in patients undergoing cataract surgery … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

143. The LenSx operates an imaging system so as to acquire image data from locations distributed throughout a volume of a cataractous crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly. For example, Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye." Upon information and belief, the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a circle scan. Alcon has illustrated a circle scan as follows:



The circle scan provides an image of at least a portion of the cataractous crystalline lens. For example, Alcon has shown an image of a circle scan as follows:



144. The LenSx constructs, using a computer system, an anterior capsulotomy cutting region based on the image data, the capsulotomy cutting region comprising an anterior cutting boundary axially spaced form a posterior cutting boundary so as to define an axially-elongated cutting zone transecting the anterior capsule. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." For example, Alcon has stated that in the LenSx, "a computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Alcon has stated that "[a]nterior capsulotomy patterns are programmed to cut from at least 100 microns below to 100 microns above the anterior capsule." Alcon has described the anterior capsulotomy pattern as a "treatment pattern" that "begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached." Upon information and belief, a completed anterior capsulotomy transects the anterior capsule.

145. The LenSx operates the surgical system to direct a pulsed laser treatment beam in a pattern based on the anterior capsulotomy cutting region so as to create an anterior

capsulotomy in the crystalline lens. For example, Alcon has stated that in the LenSx, "a computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Alcon has also stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions." Alcon has stated that "[t]he treatment pattern begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens. The anterior capsulotomy is created by scanning a cylindrical shell."

146. Alcon's use of the LenSx in the United States infringes the '001 patent under 35 U.S.C. § 271(a).

147. Alcon's customers in the United States directly infringe the '001 patent by using the LenSx.

148. Alcon actively induces infringement of the '001 patent by encouraging its customers to use the LenSx, with knowledge that the induced acts constitute patent infringement and/or with willful blindness to infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials

that instruct and encourage its customers to use the LenSx in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

149. Alcon has known of the '001 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '001 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '001 patent claims plainly reads upon the LenSx.

150. Alcon contributes to infringement of the '001 patent by offering to sell and selling the LenSx and consumables for use with the LenSx, including but not limited to the LenSx SoftFit Patient Interface, that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are designed and configured so that the customer will use the system to perform anterior capsulotomy and lens fragmentation in a manner that infringes the patent. The customer necessarily infringes the patent when it uses the LenSx and consumables for the indicated use in the creation of anterior capsulotomy, and laser phacofragmentation during cataract surgery. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or consumables for the indicated uses in a way to avoid infringement of the '001 patent.

151. Alcon is not licensed under the '001 patent.

152. J&J Surgical Vision has been damaged and will continue to be damaged by Alcon's infringement of the '001 patent.

153. J&J Surgical Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Surgical Vision does not have an adequate remedy at law.

154. Despite Alcon's knowledge of the '001 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '001 patent has been willful, making this an exceptional case and entitling J&J Surgical Vision to an award of increased damages and attorneys' fees.

COUNT VI
Infringement of the '415 Patent

155. J&J Surgical Vision incorporates by reference the allegations set forth in paragraphs 1 through 154 as though fully set forth herein.

156. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '415 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, without authority or license, in violation of 35 U.S.C. § 271.

157. For example, the LenSx meets each limitation of at least claim 1 of the '415 patent, which claims:

> A method for incising ocular tissue during a cataract surgical procedure, the method comprising:
>
> > operating an imaging device to acquire image data of ocular tissue, the image data including lens interior image data for an interior portion of the lens of a patient's eye;
> >
> > processing the image data via a control system so as to generate an anterior capsulotomy scanning pattern for scanning a focal zone of a laser beam for

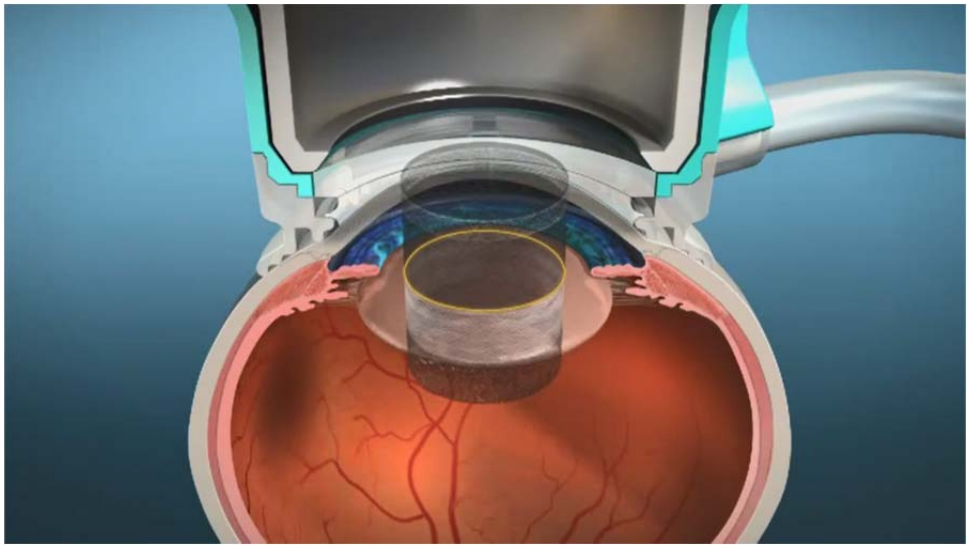
performing an anterior capsulotomy, the imaging device being operatively coupled to the control system;

generating the laser beam; and

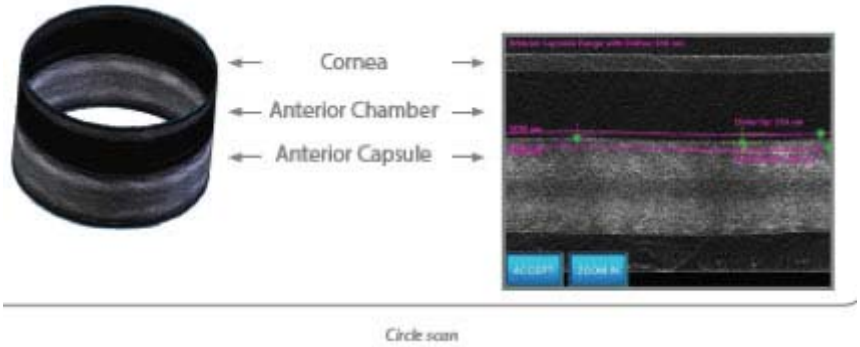
scanning the focal zone of the laser beam in the anterior capsulotomy scanning pattern so as to perform the anterior capsulotomy, wherein positioning of the focal zone is controlled by the control system based on the image data.

158. The LenSx practices a method for incising ocular tissue during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

159. The LenSx operates an imaging device to acquire image data of ocular tissue, the image data including lens interior image data for an interior portion of the lens of a patient's eye. For example, Alcon has stated that "[an OCT] consists of a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye. Light scattered from ocular structures and surfaces within the eye is analyzed to produce cross sectional images of the eye's anterior segment. Various sectioned images may be produced, including … circle and line scans of the lens and capsule." Alcon has illustrated a circle scan as follows:



The circle scan provides image data for an interior portion of the lens. For example, Alcon has shown an image of a circle scan as follows:



160. The LenSx processes the image data via a control system so as to generate an anterior capsulotomy scanning pattern for scanning a focal zone of a laser beam for performing an anterior capsulotomy, the imaging device being operatively coupled to the control system. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated

that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

161. The LenSx generates the laser beam. For example, Alcon has stated that "the laser engine uses a conventional amplified laser design in which pulses with sufficient bandwidth are generated by an oscillator, amplified to higher energies, and finally compressed in time to femtosecond pulse duration…. The beam of compressed pulses from the laser then enters the energy monitoring assembly."

162. The LenSx scans the focal zone of the laser beam in the anterior capsulotomy scanning pattern so as to perform the anterior capsulotomy, wherein positioning of the focal zone is controlled by the control system based on the image data. For example, Alcon has stated that "[a] femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision. … The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Upon information and belief, the LenSx is indicated for use in the creation of an anterior capsulotomy. Alcon has stated that "[a]nterior capsulotomy patterns

are programmed to cut from at least 100 microns below to 100 microns above the anterior capsule." Alcon has described the anterior capsulotomy pattern as a "treatment pattern" that "begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached."

163. Alcon's use of the LenSx in the United States infringes the '415 patent under 35 U.S.C. § 271(a).

164. Alcon's customers in the United States directly infringe the '415 patent by using the LenSx.

165. Alcon actively induces infringement of the '415 patent by encouraging its customers to use the LenSx, with knowledge that the induced acts constitute patent infringement and/or with willful blindness to infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

166. Alcon has known of the '415 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '415 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its

customers' use of the LenSx constitutes patent infringement, because the language of the '415 patent claims plainly reads upon the LenSx.

167. Alcon contributes to infringement of the '415 patent by offering to sell and selling the LenSx and consumables for use with the LenSx, including but not limited to the LenSx SoftFit Patient Interface, that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are designed and configured so that the customer will use the system to perform anterior capsulotomy and lens fragmentation in a manner that infringes the patent. The customer necessarily infringes the patent when it uses the LenSx and consumables for the indicated use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or consumables for the indicated uses in a way to avoid infringement of the '415 patent.

168. Alcon is not licensed under the '415 patent.

169. J&J Surgical Vision has been damaged and will continue to be damaged by Alcon's infringement of the '415 patent.

170. J&J Surgical Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Surgical Vision does not have an adequate remedy at law.

171. Despite Alcon's knowledge of the '415 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's

infringement of the ’415 patent has been willful, making this an exceptional case and entitling J&J Surgical Vision to an award of increased damages and attorneys’ fees.

COUNT VII
Infringement of the ’448 Patent

172. J&J Surgical Vision incorporates by reference the allegations set forth in paragraphs 1 through 171 as though fully set forth herein.

173. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the ’448 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

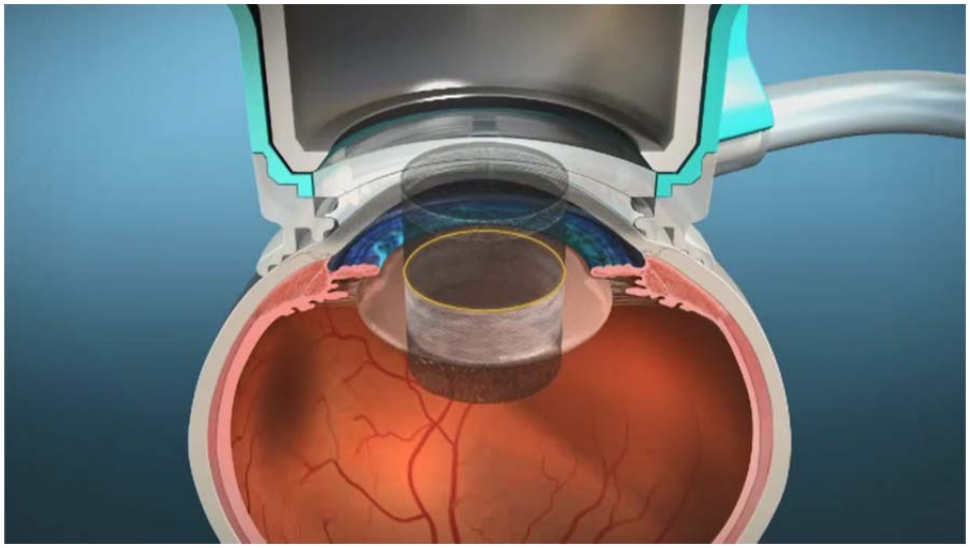
174. For example, the LenSx meets each limitation of claim 1 of the ’448 patent, which claims:

> A laser surgical system for making incisions in ocular tissue during a cataract surgical procedure, the system comprising:
>
> a laser system comprising a scanning assembly, a laser operable to generate a laser beam configured to incise ocular issue, and an imaging device; and
>
> a control system operably coupled to the laser system and configured to:
>
> operate the imaging device to generate image data for ocular tissue of a patient’s eye, the image data including lens interior image data for an interior portion of the lens of the patient’s eye;
>
> process the image data to determine an anterior capsulotomy scanning pattern for scanning a focal zone of the laser beam for performing an anterior capsulotomy; and
>
> operate the laser and the scanning assembly to scan the focal zone of the laser beam in the anterior capsulotomy scanning pattern to perform the anterior capsulotomy, wherein positioning of the focal zone is guided by the control system based on the image data.

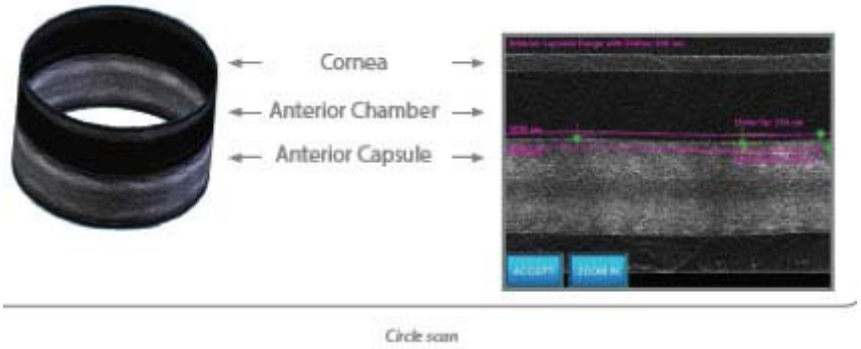
175. The LenSx is a laser surgical system for making incisions in ocular tissue during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

176. The LenSx has a scanning assembly, a laser operable to generate a laser beam configured to incise ocular tissue, and an imaging device. For example, Alcon has stated that the LenSx device console "houses the laser source, power supplies, control electronics, cooling system, beam delivery device, optical coherence tomography (OCT) device, video microscope and computers." Alcon has also stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea."

177. The LenSx has a control system operably coupled to the laser system and configured to operate the imaging device to generate image data for ocular tissue of a patient's eye, the image data including lens interior image data for an interior portion of the lens of the patient's eye. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the LenSx uses its OCT imaging to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



The circle scan provides image data for an interior portion of the patient's eye. For example, Alcon has shown an image of a circle scan as follows:



178. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine an anterior capsulotomy scanning pattern for scanning a focal zone of the laser beam for performing an anterior capsulotomy. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the

Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

179. The LenSx has a control system operably coupled to the laser system and configured to operate the laser and the scanning assembly to scan the focal zone of the laser beam in the anterior capsulotomy scanning pattern to perform the anterior capsulotomy, wherein positioning of the focal zone is guided by the control system based on the image data. For example, Alcon has stated that in the LenSx, "a computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Alcon has also stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location."

180. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States infringes the '448 patent under 35 U.S.C. § 271(a).

181. Alcon's customers in the United States directly infringe the '448 patent by using the LenSx.

182. Alcon actively induces infringement of the '448 patent by encouraging its customers to use the LenSx, with knowledge that the induced acts constitute patent infringement and/or with willful blindness to infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

183. Alcon has known of the '448 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '448 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '448 patent claims plainly reads upon the LenSx.

184. Alcon contributes to infringement of the '448 patent by offering to sell and selling the LenSx and consumables for use with the LenSx, including but not limited to the LenSx SoftFit Patient Interface, that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx and consumables are especially made and

especially adapted for use in infringing the patent. The LenSx and consumables are designed and configured so that the customer will use the system to perform anterior capsulotomy and lens fragmentation in a manner that infringes the patent. The customer necessarily infringes the patent when it uses the LenSx and consumables for the indicated use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or consumables for the indicated uses in a way to avoid infringement of the '448 patent.

185. Alcon infringes the '448 patent by supplying or causing to be supplied in or from the United States components of the invention that are especially made or especially adapted for use in the invention, and which would infringe the patent when combined, including but not limited to the LenSx and consumables such as the LenSx SoftFit Patient Interface, in violation of 35 U.S.C. § 271(f). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use.

186. Alcon is not licensed under the '448 patent.

187. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Surgical Vision's marking of the Catalys® Precision Laser System.

188. J&J Surgical Vision has been damaged and will continue to be damaged by Alcon's infringement of the '448 patent.

189. J&J Surgical Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Surgical Vision does not have an adequate remedy at law.

190. Despite Alcon's knowledge of the '448 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '448 patent has been willful, making this an exceptional case and entitling J&J Surgical Vision to an award of increased damages and attorneys' fees.

COUNT VIII
Infringement of the '732 Patent

191. J&J Surgical Vision incorporates by reference the allegations set forth in paragraphs 1 through 190 as though fully set forth herein.

192. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '732 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

193. For example, the LenSx meets each limitation of claim 1 of the '732 patent, which claims:

> A laser surgical system for making incisions in ocular tissue during a cataract surgical procedure, the system comprising:
>
> a laser operable to generate a laser beam for incising ocular tissue;
>
> a scanning assembly operable to direct a focal zone of the laser beam to locations within a patient's eye;
>
> an optical coherence tomography (OCT) imaging device; and
>
> a control system operably coupled to the laser, the scanning assembly, and the OCT imaging device; the control system being configured to:

> operate the OCT imaging device to generate image data for ocular tissue of the patient, the image data including lens interior image data for an interior portion of the lens of the patient's eye;
>
> process the image data to determine an anterior capsulotomy scanning pattern for scanning the focal zone of the laser beam for performing an anterior capsulotomy; and
>
> operate the laser and the scanning assembly to scan the focal zone of the laser beam in the anterior capsulotomy scanning pattern so as to perform the anterior capsulotomy, wherein positioning of the focal zone is guided by the control system based on the image data.

194. The LenSx is a laser surgical system for making incisions in ocular tissue during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery…. The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

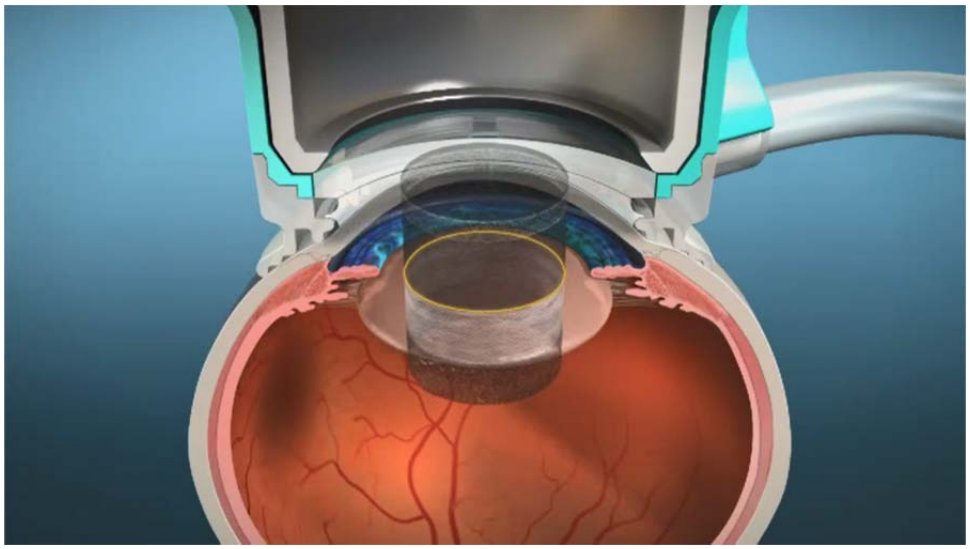
195. The LenSx has a laser operable to generate a laser beam for incising ocular tissue. For example, Alcon has stated that the LenSx device console "houses the laser source, power supplies, control electronics, cooling system, beam delivery device, optical coherence tomography (OCT) device, video microscope and computers." Alcon has also stated that the LenSx "uses focused femtosecond laser pulses to create incisions and separates tissue in the lens capsule, crystalline lens and cornea."

196. The LenSx has a scanning assembly operable to direct a focal zone of the laser beam to locations within a patient's eye. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at

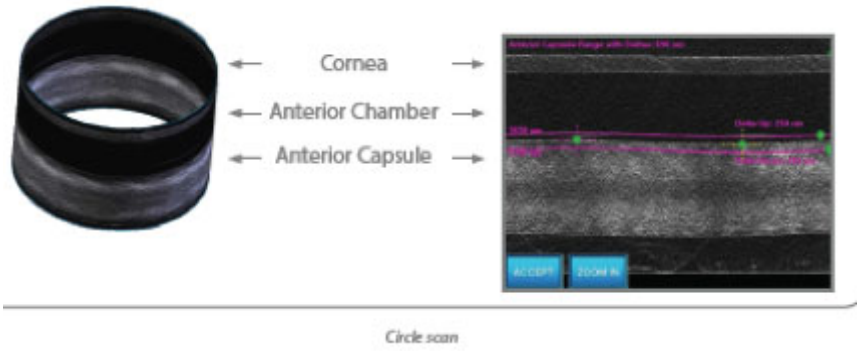
the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

197. The LenSx has an optical coherence tomography (OCT) imaging device. For example, Alcon has stated that the LenSx device console "houses the laser source, power supplies, control electronics, cooling system, beam delivery device, optical coherence tomography (OCT) device, video microscope and computers."

198. The LenSx has a control system operably coupled to the laser, the scanning assembly, and the OCT imaging device; the control system being configured to operate the OCT imaging device to generate image data for ocular tissue of the patient, the image data including lens interior image data for an interior portion of the lens of the patient's eye. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the LenSx uses its OCT imaging device to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



The circle scan provides image data for an interior portion of the lens of the patient's eye. For example, Alcon has shown an image of a circle scan as follows:



199. The LenSx has a control system operably coupled to the laser, the scanning assembly, and the OCT imaging device; the control system being configured to process the image data to determine an anterior capsulotomy scanning pattern for scanning the focal zone of the laser beam for performing an anterior capsulotomy. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that in the LenSx, "a computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Upon information and belief, the LenSx is indicated for use in the creation of an anterior capsulotomy. Alcon has stated that "[a]nterior capsulotomy patterns are programmed to cut from at least 100 microns below and 100 microns above the anterior capsule." Alcon has described the anterior capsulotomy pattern as a "treatment pattern" that "begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the

first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached."

200. The LenSx has a control system operably coupled to the laser, the scanning assembly, and the OCT imaging device; the control system being configured to operate the laser and the scanning assembly to scan the focal zone of the laser beam in the anterior capsulotomy scanning pattern so as to perform the anterior capsulotomy, wherein positioning of the focal zone is guided by the control system based on the image data. For example, Alcon has stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

201. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States infringes the '732 patent under 35 U.S.C. § 271(a).

202. Alcon's customers in the United States directly infringe the '732 patent by using the LenSx.

203. Alcon actively induces infringement of the '732 patent by encouraging its customers to use the LenSx, with knowledge that the induced acts constitute patent infringement and/or with willful blindness to infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the

ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

204. Alcon has known of the '732 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '732 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '732 patent claims plainly reads upon the LenSx.

205. Alcon contributes to infringement of the '732 patent by offering to sell and selling the LenSx and consumables for use with the LenSx, including but not limited to the LenSx SoftFit Patient Interface, that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are designed and configured so that the customer will use the system to perform anterior capsulotomy and lens fragmentation in a manner that infringes the patent. The customer necessarily infringes the patent when it uses the LenSx and consumables for the indicated use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or

use the LenSx or consumables for the indicated uses in a way to avoid infringement of the '732 patent.

206. Alcon infringes the '732 patent by supplying or causing to be supplied in or from the United States components of the invention that are especially made or especially adapted for use in the invention, and which would infringe the patent when combined, including but not limited to the LenSx and consumables such as the LenSx SoftFit Patient Interface, in violation of 35 U.S.C. § 271(f). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use.

207. Alcon is not licensed under the '732 patent.

208. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Surgical Vision's marking of the Catalys® Precision Laser System.

209. J&J Surgical Vision has been damaged and will continue to be damaged by Alcon's infringement of the '732 patent.

210. J&J Surgical Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Surgical Vision does not have an adequate remedy at law.

211. Despite Alcon's knowledge of the '732 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '732 patent has been willful, making this an exceptional case and entitling J&J Surgical Vision to an award of increased damages and attorneys' fees.

COUNT IX
Infringement of the '725 Patent

212. J&J Surgical Vision incorporates by reference the allegations set forth in paragraphs 1 through 211 as though fully set forth herein.

213. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '725 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

214. For example, the LenSx meets each limitation of claim 1 of the '725 patent, which claims:

> A laser surgical system for making incisions in ocular tissues during a cataract surgical procedure, the system comprising:
>
> a laser system comprising a scanning assembly, a laser operable to generate a laser beam configured to incise ocular tissue;
>
> an imaging device configured to acquire point by point image data from locations distributed throughout a volume of a crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens; and
>
> a control system operably coupled to the laser system and configured to:
>
> operate the imaging device to generate image data for patient's crystalline lens;
>
> process the image data to identify a location for each of one or more targets in the lens of the patient;
>
> process the image data to determine a treatment scanning pattern for scanning a focal zone of the laser beam for performing one or more incisions in the lens capsule; and
>
> operate the laser and the scanning assembly to scan the focal zone of the laser beam in the treatment scanning pattern at each location of the one or more targets, wherein positioning of the focal zone is guided by the

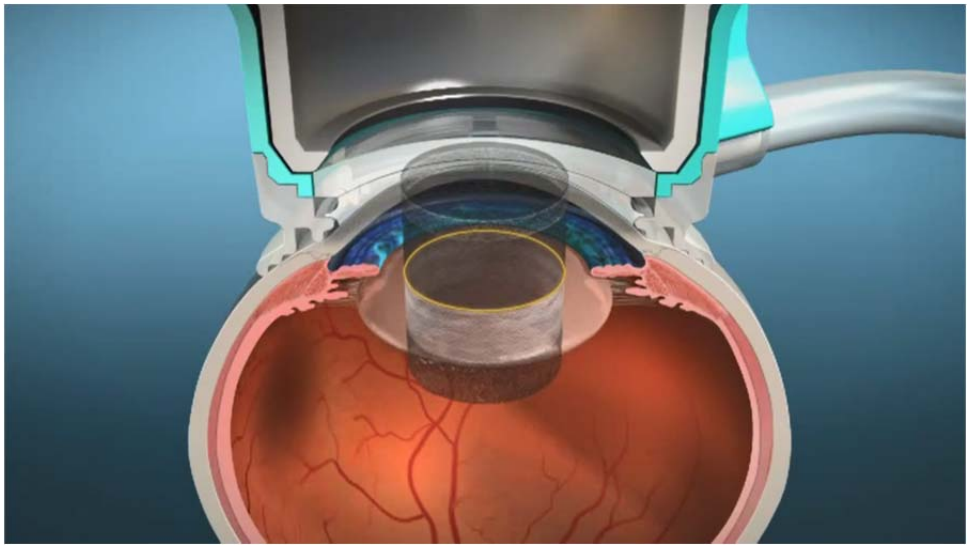
control system based on the location of the one or more targets so as to perform the one or more incision in the lens capsule.

215. The LenSx is a laser surgical system for making incisions in ocular tissues during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

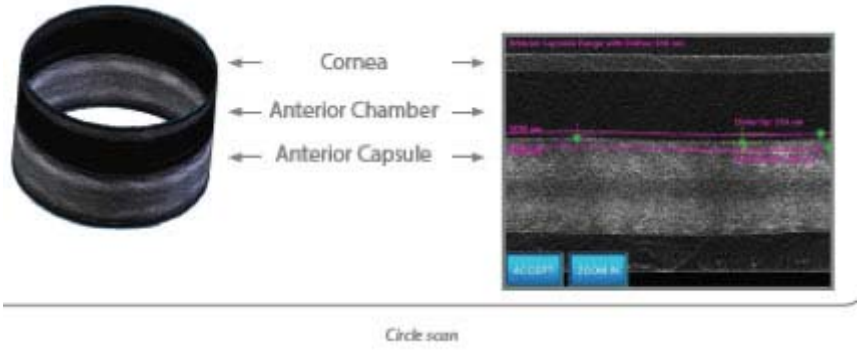
216. The LenSx has a laser system comprising a scanning assembly and a laser operable to generate a laser beam configured to incise ocular tissue. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

217. The LenSx has an imaging device configured to acquire point by point image data from locations distributed throughout a volume of a crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens. For example, Alcon has stated that "[t]he OCT consists of a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye. Light scattered from ocular structures and surfaces within the eye is analyzed to produce cross sectional images of the eye's anterior segment. Various sectioned images may be produced, including a wide field line scan of the anterior chamber, magnified cross sections of the cornea at the points of planned incisions, and circle and line scans of the lens and capsule."

218. The LenSx has a control system operably coupled to the laser system and configured to operate the imaging device to generate image data for patient's crystalline lens. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the LenSx uses its OCT imaging device to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



The circle scan provides an image of the patient's crystalline lens. For example, Alcon has shown an image of a circle scan as follows:



219. The LenSx has a control system operably coupled to the laser system and configured to process the image data to identify a location for each of one or more targets in the lens of the patient. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Alcon has also stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has stated that in the LenSx, "a computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location."

220. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine a treatment scanning pattern for scanning a focal zone of the laser beam for performing one or more incisions in the lens capsule. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Upon information and belief, an anterior capsulotomy requires performing one or more incisions in the lens capsule. Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired

surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

221. The LenSx has a control system operably coupled to the laser system and configured to operate the laser and the scanning assembly to scan the focal zone of the laser beam in the treatment scanning pattern at each location of the one or more targets, wherein positioning of the focal zone is guided by the control system based on the location of the one or more targets so as to perform the one or more incision in the lens capsule. For example, Alcon has stated that in the LenSx, "a computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Alcon has stated that in the LenSx, "a computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Alcon has also stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Upon information and belief, the LenSx is indicated for use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery. Upon information and belief an anterior capsulotomy requires performing one or more incisions in the lens capsule. For example, Alcon has described the anterior capsulotomy pattern as a "treatment pattern" that "begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached."

222. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States infringes the '725 patent under 35 U.S.C. § 271(a).

223. Alcon's customers in the United States directly infringe the '725 patent by using the LenSx.

224. Alcon actively induces infringement of the '725 patent by encouraging its customers to use the LenSx, with knowledge that the induced acts constitute patent infringement and/or with willful blindness to infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

225. Alcon has known of the '725 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '725 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '725 patent claims plainly reads upon the LenSx.

226. Alcon contributes to infringement of the '725 patent by offering to sell and selling the LenSx and consumables for use with the LenSx, including but not limited to the LenSx SoftFit Patient Interface, that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx and consumables are especially made and

especially adapted for use in infringing the patent. The LenSx and consumables are designed and configured so that the customer will use the system to perform anterior capsulotomy and lens fragmentation in a manner that infringes the patent. The customer necessarily infringes the patent when it uses the LenSx and consumables for the indicated use in the creation of), anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or consumables for the indicated uses in a way to avoid infringement of the '725 patent.

227. Alcon infringes the '725 patent by supplying or causing to be supplied in or from the United States components of the invention that are especially made or especially adapted for use in the invention, and which would infringe the patent when combined, including but not limited to the LenSx and consumables such as the LenSx SoftFit Patient Interface, in violation of 35 U.S.C. § 271(f). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use.

228. Alcon is not licensed under the '725 patent.

229. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Surgical Vision's marking of the Catalys® Precision Laser System.

230. J&J Surgical Vision has been damaged and will continue to be damaged by Alcon's infringement of the '725 patent.

231. J&J Surgical Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Surgical Vision does not have an adequate remedy at law.

232. Despite Alcon's knowledge of the '725 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '725 patent has been willful, making this an exceptional case and entitling J&J Surgical Vision to an award of increased damages and attorneys' fees.

COUNT X
Infringement of the '648 Patent

233. J&J Surgical Vision incorporates by reference the allegations set forth in paragraphs 1 through 232 as though fully set forth herein.

234. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '648 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

235. For example, the LenSx meets each limitation of claim 1 of the '648 patent, which claims:

> A laser surgical system for making incisions in ocular tissues during a cataract surgical procedure, the system comprising:
>
> a laser system comprising a scanning assembly;
>
> a laser operable to generate a laser beam configured to incise ocular tissue;
>
> an imaging device configured to acquire image data of at least a portion of the lens; and
>
> a control system operably coupled to the laser system and configured to:

> operate the imaging device to generate image data for the patient's crystalline lens;
>
> process the image data to determine an anterior capsule incision scanning pattern for scanning a focal zone of the laser beam for performing an anterior capsule incision; and
>
> operate the laser and the scanning assembly to scan the focal zone of the laser beam in the anterior capsule incision scanning pattern to perform the anterior capsule incision, wherein positioning of the focal zone is determined in part by the control system based on the image data.

236. The LenSx is a laser surgical system for making incisions in ocular tissues during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

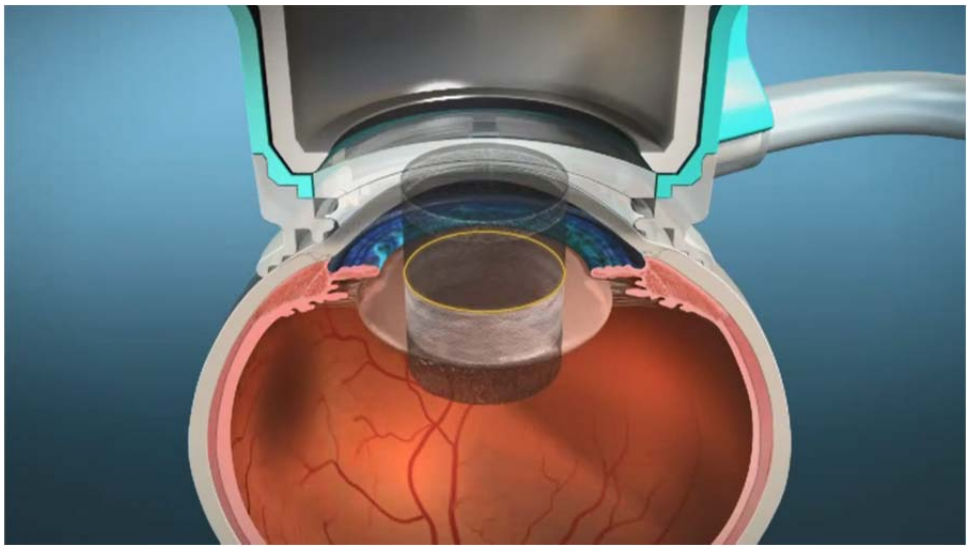
237. The LenSx has a laser system comprising a scanning assembly. For example, Alcon has stated that the LenSx has "[a] computer-controlled scanning system [that] directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

238. The LenSx has a laser operable to generate a laser beam configured to incise ocular tissue. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

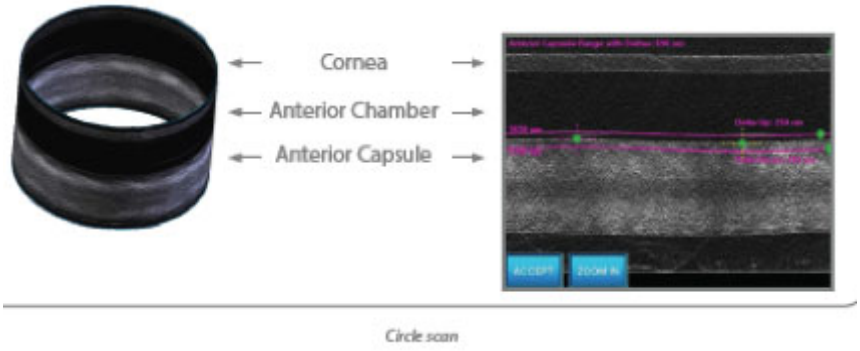
239. The LenSx has an imaging device configured to acquire image data of at least a portion of the lens. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly. For example, Alcon has stated that its OCT imaging assembly is "a low

power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye."

240. The LenSx has a control system operably coupled to the laser system and configured to operate the imaging device to generate image data for the patient's crystalline lens. For example, Alcon has stated that in the LenSx, "a computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



The circle scan provides an image of the patient's crystalline lens. For example, Alcon has shown an image of a circle scan as follows:



241. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine an anterior capsule incision scanning pattern for scanning a focal zone of the laser beam for performing an anterior capsule incision. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

242. The LenSx has a control system operably coupled to the laser system and configured to operate the laser and the scanning assembly to scan the focal zone of the laser beam in the anterior capsule incision scanning pattern to perform the anterior capsule incision, wherein positioning of the focal zone is determined in part by the control system based on the image data. For example, Alcon has stated that the LenSx "includes an optical coherence

tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

243. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States infringes the '648 patent under 35 U.S.C. § 271(a).

244. Alcon's customers in the United States directly infringe the '648 patent by using the LenSx.

245. Alcon actively induces infringement of the '648 patent by encouraging its customers to use the LenSx, with knowledge that the induced acts constitute patent infringement and/or with willful blindness to infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

246. Alcon has known of the ’648 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon’s knowledge of the ’648 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers’ use of the LenSx constitutes patent infringement, because the language of the ’648 patent claims plainly reads upon the LenSx.

247. Alcon contributes to infringement of the ’648 patent by offering to sell and selling the LenSx and consumables for use with the LenSx, including but not limited to the LenSx SoftFit Patient Interface, that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are designed and configured so that the customer will use the system to perform anterior capsulotomy and lens fragmentation in a manner that infringes the patent. The customer necessarily infringes the patent when it uses the LenSx and consumables for the indicated use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or consumables for the indicated uses in a way to avoid infringement of the ’648 patent.

248. Alcon infringes the ’648 patent by supplying or causing to be supplied in or from the United States components of the invention that are especially made or especially adapted for use in the invention, and which would infringe the patent when combined, including but not limited to the LenSx and consumables such as the LenSx SoftFit Patient Interface, in violation of 35 U.S.C. § 271(f). Alcon does so knowing that the LenSx and consumables are especially made

and especially adapted for use in infringing the patent. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use.

249. Alcon is not licensed under the '648 patent.

250. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Surgical Vision's marking of the Catalys® Precision Laser System.

251. J&J Surgical Vision has been damaged and will continue to be damaged by Alcon's infringement of the '648 patent.

252. J&J Surgical Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Surgical Vision does not have an adequate remedy at law.

253. Despite Alcon's knowledge of the '648 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '648 patent has been willful, making this an exceptional case and entitling J&J Surgical Vision to an award of increased damages and attorneys' fees.

COUNT XI
Infringement of the '903 Patent

254. J&J Surgical Vision incorporates by reference the allegations set forth in paragraphs 1 through 253 as though fully set forth herein.

255. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '903 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

256. For example, the LenSx meets each limitation of claim 1 of the '903 patent, which claims:

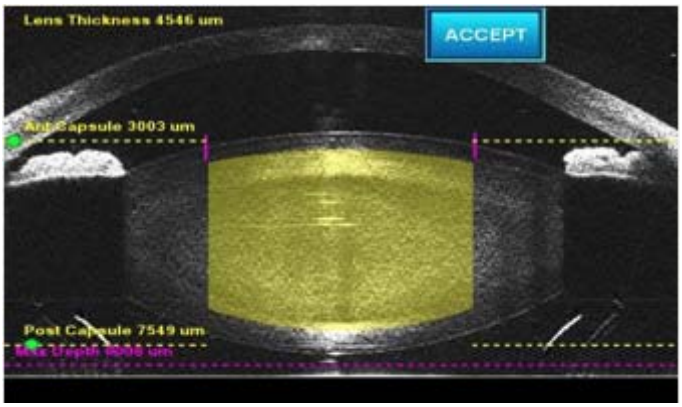
> A laser surgical system for making incisions in ocular tissues during a cataract surgical procedure, the system comprising:
>
> a laser system comprising a scanning assembly, a laser operable to generate a laser beam configured to incise ocular tissue;
>
> an imaging device configured to acquire image data from locations distributed throughout a volume of a crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens; and
>
> a control system operably coupled to the laser system and configured to:
>
> operate the imaging device to generate image data of a continuous depth profile of the volume of the patient's crystalline lens;
>
> identify one or more boundaries of the one or more tissue structures of the crystalline lens based at least in part on the image data;
>
> process the image data to determine a lens fragmentation treatment region of the lens of the eye based at least in part upon the one or more boundaries, the lens fragmentation treatment region comprising a posterior cutting boundary located anterior to the posterior capsule of the lens;
>
> process the image data to determine a lens fragmentation scanning pattern for scanning a focal zone of the laser beam for performing lens fragmentation, the lens fragmentation pattern comprising a scanning pattern at a plurality of depths within the lens fragmentation treatment region; and
>
> operate the laser and the scanning assembly to scan the focal zone of the laser beam in the lens fragmentation scanning pattern consecutively at each of the plurality of depths within the lens fragmentation treatment region,
>
> wherein positioning of the focal zone is guided by the control system based on the image data.

257. The LenSx is a laser surgical system for making incisions in ocular tissues during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is

indicated for use in patients undergoing cataract surgery … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

258. The LenSx has a laser system comprising a scanning assembly and a laser operable to generate a laser beam configured to incise ocular tissue. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

259. The LenSx has an imaging device configured to acquire image data from locations distributed throughout a volume of a crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging device. For example, Alcon has stated that "[t]he OCT consists of a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye. Light scattered from ocular structures and surfaces within the eye is analyzed to produce cross sectional images of the eye's anterior segment. Various sectioned images may be produced, including a wide field line scan of the anterior chamber, magnified cross sections of the cornea at the points of planned incisions, and circle and line scans of the lens and capsule." Upon information and belief the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a line scan. For example, Alcon has shown an image of a line scan as follows:



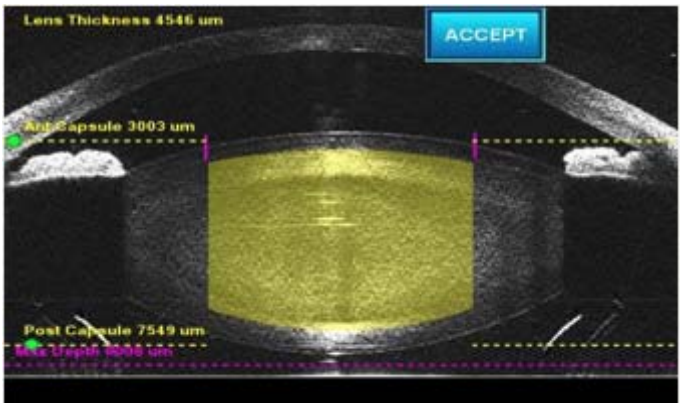
The line scan provides an image of at least a portion of the crystalline lens.

260. The LenSx has a control system operably coupled to the laser system and configured to operate the imaging device to generate image data of a continuous depth profile of the volume of the patient's crystalline lens. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging device. For example, Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye." Upon information and belief, the line scan shows a continuous depth profile of the volume of the patient's crystalline lens.

261. The LenSx has a control system operably coupled to the laser system and configured to identify one or more boundaries of the one or more tissue structures of the crystalline lens based at least in part on the image data. For example, with respect to the above image of a line scan, Alcon has stated that "[t]he Lens treatment volume is represented by a yellow semi-transparent solid. The upper arc of the solid matches the programmed Anterior Lens Curvature and the lower arc corresponds to the programmed Posterior Lens Curvature."

262. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine a lens fragmentation treatment region of the lens of the eye based at least in part upon the one or more boundaries, the lens fragmentation treatment region comprising a posterior cutting boundary located anterior to the posterior capsule

of the lens. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Alcon has also stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Upon information and belief, the LenSx displays a treatment region to the user. For example, Alcon has shown an image of a treatment region as follows:



Alcon has stated that "[t]he Lens treatment volume is represented by a yellow semi-transparent solid. The upper arc of the solid matches the programmed Anterior Lens Curvature and the lower arc corresponds to the programmed Posterior Lens Curvature." Alcon has stated that the "yellow solid" corresponds to the "volume of the Lens Pattern." Alcon has described the "Lens Pattern" as "used to perform phacofragmentation of the crystalline lens."

263. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine a lens fragmentation scanning pattern for scanning a focal zone of the laser beam for performing lens fragmentation, the lens fragmentation pattern comprising a scanning pattern at a plurality of depths within the lens fragmentation treatment region. For example, Alcon has stated that the "Lens Pattern is used to perform phacofragmentation of the crystalline lens. Lens Patterns may be specified as Chop, Cylinder or combined Chop and Cylinder patterns." Alcon has also stated that these "Lens

phacofragmentation patterns are programmed to cut from at least 500 microns above the posterior capsule to at least 500 microns below the anterior capsule." Alcon has stated that the phacofragmentation "treatment pattern begins at the programmed posterior depth as an initial x-shaped scan is complete." Alcon has stated that the incision of the treatment pattern at the programmed posterior depth is "followed by successive x-shaped scans created a few microns apart." Alcon has also stated that these "cuts proceed from the deepest point and move anteriorly, ending below the anterior capsule."

264. The LenSx has a control system operably coupled to the laser system and configured to operate the laser and the scanning assembly to scan the focal zone of the laser beam in the lens fragmentation scanning pattern consecutively at each of the plurality of depths within the lens fragmentation treatment region. For example, Alcon has stated that the phacofragmentation "treatment pattern begins at the programmed posterior depth as an initial x-shaped scan is complete." Alcon has stated that the incision of the treatment pattern at the programmed posterior depth is "followed by successive x-shaped scans created a few microns apart." Alcon has also stated that these "cuts proceed from the deepest point and move anteriorly, ending below the anterior capsule."

265. The LenSx has the above-described system wherein the positioning of the focal zone is guided by the control system based on the image data. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that "[l]ens phacofragmentation patterns are programmed to cut from at least 500 microns above the posterior capsule to at least 500 microns below the anterior capsule."

266. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States infringes the '903 patent under 35 U.S.C. § 271(a).

267. Alcon's customers in the United States directly infringe the '903 patent by using the LenSx.

268. Alcon actively induces infringement of the '903 patent by encouraging its customers to use the LenSx, with knowledge that the induced acts constitute patent infringement and/or with willful blindness to infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

269. Alcon has known of the '903 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '903 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '903 patent claims plainly reads upon the LenSx.

270. Alcon contributes to infringement of the '903 patent by offering to sell and selling the LenSx and consumables for use with the LenSx, including but not limited to the LenSx SoftFit Patient Interface, that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx and consumables are especially made and

especially adapted for use in infringing the patent. The LenSx and consumables are designed and configured so that the customer will use the system to perform anterior capsulotomy and lens fragmentation in a manner that infringes the patent. The customer necessarily infringes the patent when it uses the LenSx and consumables for the indicated use in the creation of anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or consumables for the indicated uses in a way to avoid infringement of the '903 patent.

271. Alcon infringes the '903 patent by supplying or causing to be supplied in or from the United States components of the invention that are especially made or especially adapted for use in the invention, and which would infringe the patent when combined, including but not limited to the LenSx and consumables such as the LenSx SoftFit Patient Interface, in violation of 35 U.S.C. § 271(f). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use.

272. Alcon is not licensed under the '903 patent.

273. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Surgical Vision's marking of the Catalys® Precision Laser System.

274. J&J Surgical Vision has been damaged and will continue to be damaged by Alcon's infringement of the '903 patent.

275. J&J Surgical Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Surgical Vision does not have an adequate remedy at law.

276. Despite Alcon's knowledge of the '903 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '903 patent has been willful, making this an exceptional case and entitling J&J Surgical Vision to an award of increased damages and attorneys' fees.

COUNT XII
Infringement of the '904 Patent

277. J&J Surgical Vision incorporates by reference the allegations set forth in paragraphs 1 through 276 as though fully set forth herein.

278. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '904 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

279. For example, the LenSx meets each limitation of claim 1 of the '904 patent, which claims:

> A laser surgical system for making incisions in ocular tissues during a cataract surgical procedure, the system comprising:
>
> > a laser system comprising a scanning assembly, a laser operable to generate a laser beam configured to incise ocular tissue;
> >
> > an imaging device configured to acquire image data from locations distributed throughout a volume of a crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens; and

a control system operably coupled to the laser system and configured to:

operate the imaging device to generate image data of a continuous depth profile of the volume of the patient's crystalline lens;

identify one or more boundaries of the crystalline lens based at least in part on the image data;

process the image data to determine a lens fragmentation scanning pattern for scanning a focal zone of the laser beam for performing lens fragmentation, the lens fragmentation scanning pattern comprising a planar pattern at a first depth and at one or more additional depths anterior to the first depth;

process the image data to determine a lens fragmentation treatment region of the lens of the eye based at least in part upon the one or more boundaries;

operate the laser and the scanning assembly to scan the focal zone of the laser beam within the lens fragmentation treatment region in the planar pattern at the first depth and to subsequently direct the focal zone of the laser beam at the one or more additional depths anterior to the first depth, thereby effecting patterned laser cutting of lens tissue,

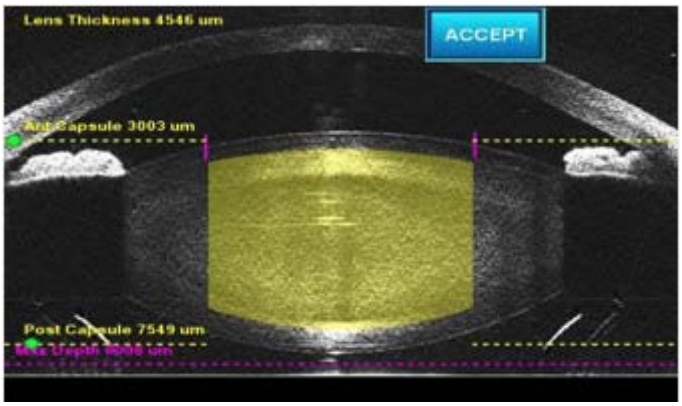
wherein positioning of the focal zone is guided by the control system based on the image data.

280. The LenSx is a laser surgical system for making incisions in ocular tissues during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

281. The LenSx has a laser system comprising a scanning assembly and a laser operable to generate a laser beam configured to incise ocular tissue. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in

diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

282. The LenSx has an imaging device configured to acquire image data from locations distributed throughout a volume of a crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging device. For example, Alcon has stated that "[t]he OCT consists of a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye. Light scattered from ocular structures and surfaces within the eye is analyzed to produce cross sectional images of the eye's anterior segment. Various sectioned images may be produced, including a wide field line scan of the anterior chamber, magnified cross sections of the cornea at the points of planned incisions, and circle and line scans of the lens and capsule." Upon information and belief the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a line scan. Alcon has shown an image of a line scan as follows:



The line scan provides an image of at least a portion of the crystalline lens.

283. The LenSx has a control system operably coupled to the laser system and configured to operate the imaging device to generate image data of a continuous depth profile of

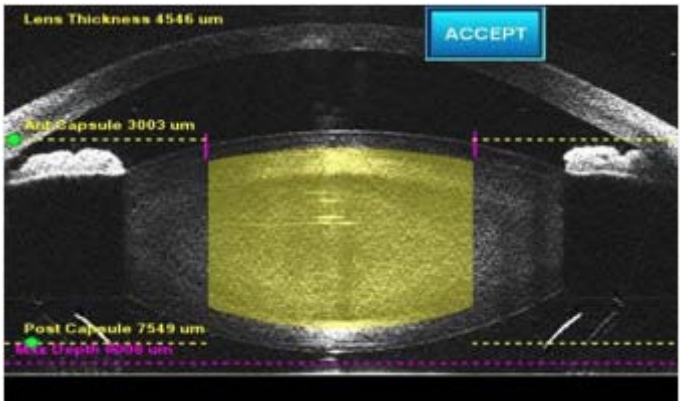
the volume of the patient's crystalline lens. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging device. For example, Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye." Upon information and belief, the line scan shows a continuous depth profile of the volume of the patient's crystalline lens.

284. The LenSx has a control system operably coupled to the laser system and configured to identify one or more boundaries of the crystalline lens based at least in part on the image data. For example, with respect to the above image of a line scan, Alcon has stated that "[t]he Lens treatment volume is represented by a yellow semi-transparent solid. The upper arc of the solid matches the programmed Anterior Lens Curvature and the lower arc corresponds to the programmed Posterior Lens Curvature."

285. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine a lens fragmentation scanning pattern for scanning a focal zone of the laser beam for performing lens fragmentation, the lens fragmentation scanning pattern comprising a planar pattern at a first depth and at one or more additional depths anterior to the first depth. For example, Alcon has stated that the "Lens Pattern is used to perform phacofragmentation of the crystalline lens. Lens Patterns may be specified as Chop, Cylinder or combined Chop and Cylinder patterns." Alcon has also stated that these "Lens phacofragmentation patterns are programmed to cut from at least 500 microns above the posterior capsule to at least 500 microns below the anterior capsule." Upon information and belief, the line scan image indicates the depth of the anterior capsule and posterior capsule, as shown in the image above. Alcon has stated that the phacofragmentation "treatment pattern begins at the programmed posterior depth as an initial x-shaped scan is complete." Alcon has

stated that the incision of the treatment pattern at the programmed posterior depth is "followed by successive x-shaped scans created a few microns apart." Alcon has also stated that these "cuts proceed from the deepest point and move anteriorly, ending below the anterior capsule."

286. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine a lens fragmentation treatment region of the lens of the eye based at least in part upon the one or more boundaries. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Alcon has also stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Upon information and belief the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a line scan. Alcon has shown an image of a line scan as follows:



Alcon has stated that "[t]he Lens treatment volume is represented by a yellow semi-transparent solid. The upper arc of the solid matches the programmed Anterior Lens Curvature and the lower arc corresponds to the programmed Posterior Lens Curvature." Upon information and belief the treatment volume includes the lens of the eye.

287. The LenSx has a control system operably coupled to the laser system and configured to operate the laser and the scanning assembly to scan the focal zone of the laser

beam within the lens fragmentation treatment region in the planar pattern at the first depth and to subsequently direct the focal zone of the laser beam at the one or more additional depths anterior to the first depth, thereby effecting patterned laser cutting of lens tissue. For example, Alcon has stated that the "Lens Pattern is used to perform phacofragmentation of the crystalline lens. Lens Patterns may be specified as Chop, Cylinder or combined Chop and Cylinder patterns." Alcon has also stated that these "Lens phacofragmentation patterns are programmed to cut from at least 500 microns above the posterior capsule to at least 500 microns below the anterior capsule." Alcon has stated that the phacofragmentation "treatment pattern begins at the programmed posterior depth as an initial x-shaped scan is complete." Alcon has stated that the incision of the treatment pattern at the programmed posterior depth is "followed by successive x-shaped scans created a few microns apart." Alcon has also stated that these "cuts proceed from the deepest point and move anteriorly, ending below the anterior capsule."

288. The LenSx has the above-described system wherein positioning of the focal zone is guided by the control system based on the image data. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that "[l]ens phacofragmentation patterns are programmed to cut from at least 500 microns above the posterior capsule to at least 500 microns below the anterior capsule."

289. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States infringes the '904 patent under 35 U.S.C. § 271(a).

290. Alcon's customers in the United States directly infringe the '904 patent by using the LenSx.

291. Alcon actively induces infringement of the '904 patent by encouraging its customers to use the LenSx, with knowledge that the induced acts constitute patent infringement and/or with willful blindness to infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

292. Alcon has known of the '904 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '904 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '904 patent claims plainly reads upon the LenSx.

293. Alcon contributes to infringement of the '904 patent by offering to sell and selling the LenSx and consumables for use with the LenSx, including but not limited to the LenSx SoftFit Patient Interface, that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are designed and configured so that the customer will use the system to perform anterior capsulotomy and lens fragmentation in a manner that infringes the patent. The customer necessarily infringes the patent when it uses the LenSx and consumables for the indicated use in the creation of anterior

capsulotomy and laser phacofragmentation during cataract surgery. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or consumables for the indicated uses in a way to avoid infringement of the '904 patent.

294. Alcon infringes the '904 patent by supplying or causing to be supplied in or from the United States components of the invention that are especially made or especially adapted for use in the invention, and which would infringe the patent when combined, including but not limited to the LenSx and consumables such as the LenSx SoftFit Patient Interface, in violation of 35 U.S.C. § 271(f). Alcon does so knowing that the LenSx and consumables are especially made and especially adapted for use in infringing the patent. The LenSx and consumables are not staple articles or commodities of commerce, and they do not have a substantial noninfringing use.

295. Alcon is not licensed under the '904 patent.

296. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Surgical Vision's marking of the Catalys® Precision Laser System.

297. J&J Surgical Vision has been damaged and will continue to be damaged by Alcon's infringement of the '904 patent.

298. J&J Surgical Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Surgical Vision does not have an adequate remedy at law.

299. Despite Alcon's knowledge of the '904 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's

infringement of the ’904 patent has been willful, making this an exceptional case and entitling J&J Surgical Vision to an award of increased damages and attorneys’ fees.

PRAYER FOR RELIEF

WHEREFORE, J&J Surgical Vision prays for a judgment that:

A. Alcon has infringed and, unless enjoined, will continue to infringe the Asserted Patents;

B. Enjoins Alcon and its officers, agents, servants, and employees from further infringement of the Asserted Patents;

C. Awards J&J Surgical Vision damages adequate to compensate for Alcon’s infringement of the Asserted Patents under 35 U.S.C. § 284;

D. Declares that this is an exceptional case under 35 U.S.C. § 285;

E. Awards increased damages and attorneys’ fees for Alcon’s willful infringement;

F. Awards pre-judgment and post-judgement interest and costs; and

G. Awards such other and further relief as this Court deems just and proper.

JURY DEMAND

J&J Surgical Vision hereby demands trial by jury on all issues so triable.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

/s/ Jack B. Blumenfeld

Jack B. Blumenfeld (#1014)
Brian P. Egan (#6227)
Jennifer A. Ward (#6476)
1201 North Market Street
P.O. Box 1347
Wilmington, DE 19899
(302) 658-9200
jblumenfeld@mnat.com
began@mnat.com
jward@mnat.com

Attorneys for Plaintiffs
AMO Development, LLC,
AMO Manufacturing USA, LLC and
AMO Sales and Service, Inc.

OF COUNSEL:

Michael A. Morin
Matthew J. Moore
Rachel Weiner Cohen
Krupa Parikh
Ashley Finger
LATHAM & WATKINS LLP
555 Eleventh Street, NW, Suite 1000
Washington, DC 20004
(202) 637-2200

Roger J. Chin
Allison Harms
LATHAM & WATKINS LLP
505 Montgomery Street, Suite 2000
San Francisco, CA 94111
(415) 491-0600

June 23, 2020